A Lecture
ON
RESPONSIBILITY AND DISEASE.

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(*Concluded from page 152.*)

IT has been said that were there a window in every human breast society would come to an end, and certain it is that were we all to give expression to every suggestion, thought, and impulse that courses through our minds, this would be a very extraordinary world. There may be stolid, prosaic, well regulated beings who never experience an aberrant thought, a fantastic tendency, or a vicious inclination; but as for most of us, we are but suppressed volcanoes presenting a placid exterior, but full of fire and ebullition within. Most of us are, I venture to say, visited at times by odd ideas, cravings, animosities, and suggestions, which are checked and dissipated by will power, but which, were they during a suspension of that power to obtain outward expression, would declare us mad indeed. The first manifestations of insanity are often but the external display of traits of thought and feeling which during health are held in leash, but which owing to failure of will power have broken loose. I remember the case of a gentleman in a large midland town, a man of high culture but strong enmities, whose mental decay was heralded by the strange habit he fell into of shaking his fist violently at all the men he disliked as he passed them in the street. He always apologised for this act and greatly deplored it, but was quite unable to abstain from it. Sudden and complete overthrow of will power may be illustrated by the case recently described of a wretched Malay, who, on receiving the news of the death of his daughter, instantly started to his feet and ran amuck down the street, stabbing as he went along eleven persons against whom he had no ill feeling whatever.

If we wish to realise what insanity is, and what the consequences are of taking off will power and letting the lower centres go, we cannot do better than watch carefully our own mental experiences in going to sleep. The transition from the waking to the dreaming state may be long or short, but we shall not fail to notice in it the gradual supercession of fact by fancy, an acceleration in the rate of succession of mental images, combinations of ideas under new laws of association, impulses of which we should feel ashamed when awake, and an entire absence of that foresight which is, I think, a better gauge than memory of intellectual power. The power of foreseeing events, and of regulating conduct, not merely by the feelings of the moment, but by a just appreciation of remote contingencies, which is absent in childhood, which it is the great aim of education to cultivate, which reaches its highest perfection in manhood and dwindles again in old age, is the result of a supreme effort of the will, and is invariably absent or enfeebled in insanity. The least likely form of crime for a lunatic to commit is that involving a long look out ahead, deliberate preparation, perseverance in a course of action, and dissembling of demeanour, and I confess I should look with grave suspicion on the defence of insanity set up in any case of slow and secret poisoning.

That voluntary power is invariably impaired in insanity is not perhaps evident to those who have not looked closely into the matter. Is it not true, it may be asked, that some insane persons exhibit extraordinary fixity of purpose and persist in some course of conduct—as, for example, the refusal of food with dogged obstinacy? That is so, but insane obstinacy is no more an indication of voluntary power than is the late rigidity of a paralysed arm. That state of late rigidity in which the arm could not be stretched without being broken betokens that certain lower centres have been cut off from intercourse with higher ones and are undergoing degeneration; and so the unreasonable obstinacy of lunatics in insane conduct merely indicates that certain mental functions have escaped the regulation of volition, which is enfeebled, and are acting in an irregular and self-willed manner in consequence.

Volition has, we may say, two fields of operation; it regulates within certain limits muscular movements and mental processes; and I would call your attention to the fact that in almost all cases of insanity some interference with voluntary control over the muscles is obvious. One of the premonitory symptoms of insanity is sometimes a change in handwriting, which depends on highly voluntary movements; in facial expression or manner, which means some withdrawal of the controlling and balancing will power from the facial muscles, or those of the trunk and limbs. In mania we see wild and disorderly movements which cannot be stayed by any effort of the will; in melancholia, flaccidity and feebleness of the muscles, which may pass into cataleptic rigidity. In general paralysis we witness tremors and twitchings of the voluntary muscles; and in chronic insanity, antics, gyrations, and contortions of a purely automatic kind. And, parallel with these motor disabilities, we have in insanity a loss of those delicate adjustments of conduct to environment in which good breeding consists, a change in character, with unwonted outbursts of temper, garrulity, self-indulgence, incoherence—a series of mental phenomena signifying a suspension or annulment of the power of the will in certain areas of its mental sphere.

Throughout those pathological states in which a diminished control of the will over muscles may be recognised, we notice a gradual reduction from the voluntary towards the involuntary in whatever the centre or part of it which is diseased represents. In progressive muscular atrophy, we see that the disease begins in the most voluntary muscles of the limb—those of the thumb and index-finger; that it spreads from these to the next most voluntary part—the hand; and that it only ultimately involves the larger and less voluntary muscles of the limbs. In chorea, we observe that the limbs—the more voluntary parts—are affected prior to the trunk—the more automatic part; and the arms, which are more voluntary than the legs, are affected before them. And so through all the pathological states in which diminished control of the will over the mental processes may be recognised we can trace out a gradual reduction from a voluntary towards an automatic condition. No doubt in all cases of insanity a certain amount of volitional power is retained, and this may in certain cases be effectual to some extent over the morbid mental manifestations. There may be contributory negligence on the part of a lunatic, just as there may be on the part of an invalid. Prof. Rühle, of Bonn, recommends the birch rod and shower-baths in certain cases of chronic vomiting, and asserts that children often die of a bad bringing up, and adults because they cannot, when ill, make up their minds to do what is right and omit what is hurtful; and Niemeyer quotes with approval the dictum of the wife of a Prussian general, a most determined woman but a tender mother, that whooping-cough is only curable by the rod. But no one in this country would now sanction such heroic treatment, or believe that anything but evil could come from such stringent appeals to a mere remnant of will in its corporeal relations; and so it would be dangerous in cases of insanity, in which will is obviously and seriously involved in its mental relations, to infer that what survives of it might, if put forth, have prevented a criminal act. In athetosis, in which the muscular movements are typically involuntary, the patient may sometimes by a strong effort control them for a little, but we do not blame him because he does not habitually do so; and in insanity, in which the mental movements are typically involuntary, but yet susceptible of some control, we must not expect of the patient what is beyond his strength—the habitual suppression of his morbid impulses. The criminal act of a lunatic is sometimes so alien to his healthy disposition, or so clearly motiveless, that we have no hesitation in concluding that his true will must have been in abeyance when he fell into it. At other times it follows upon mental struggles which he has himself described, and asked help in, previous to its commission, and is therefore clearly but the climax of a pathological process signifying the overthrow of the will. And at other times, again, it is associated with mental and bodily symptoms which, our experience has taught us, correspond with complete paralysis of will.

A lunatic may unquestionably commit a crime under ordinary motives. It cannot be contended that every mental oddity and isolated delusion is to put a man beyond

the pale of the law, but it is to be remembered that a really isolated, or, as it might be called, encapsulated delusion is a rarity, and that most delusions are but local manifestations of a constitutional vice, involving weakening of will. Most lunatics are, it has been said, mad to their finger tips, and what appear to be their sane acts are generally more or less tinctured with insanity.

I cannot pause here even to sketch the several stages of mental dissolution, but I would suggest that there are practically three levels of these in connexion with lunatic crime. These are—the ideational level, the impulsive level, and the automatic level. On the first, the ideational level, the criminal act is committed under the influence of an insane motive or a delusion or hallucination, with consciousness at the time and remembrance afterwards of all that has taken place, but in consequence of a diminution of inhibitory or resisting power. On the second, it is committed under the stress of a sudden and irresistible impulse, which is often a reversion to a mere animal instinct — self-preservative, combative, or sexual,—with vague or imperfect consciousness at the time, obscure remembrance afterwards, and under a still more grave paresis of inhibitory power. On the third, it is committed under the influence of accidental or reflex suggestion, without consciousness at the time or remembrance afterwards, and during the complete abrogation of inhibitory power. As illustrations, I may mention on the first level the case of a man who kills his friend with elaborate preparation to spare him suffering because he has been told by the Archangel Michael that the death of that friend is necessary to the extinction of freemasonry, which is the curse of the human race, and who afterwards describes the homicide in detail, and with evident pride and satisfaction; on the second level, the case of a puerperal woman, who, seeing a glittering knife by her bedside, suddenly cuts her baby's throat, without afterwards having any clear recollection of the event or being able to say why she did it, although the knowledge that she had done it fills her with grief and remorse; and on the third level, the case of an epileptic, who, while recovering from a fit, kills whoever happens to be nearest to him, while still unconscious, and who retains afterwards no trace of recollection of the tragedy.

And here perhaps it may occur to our legal critics who have listened to us with patience thus far to ask how much nearer we have got to any solution of our difficulties. "Let it be conceded," I think I hear them say, "that your medical distinctions are sound, and that the degree of impairment of the will is the true measure of responsibility, how are we to ascertain the impairment of the will? You wish to deprive us of that test—a knowledge of the nature and quality of the act and of its wrongness—which we have hitherto employed, and which was at any rate applicable in a way, and you leave us without any test whatever. How are we to know that a man's will is weakened or on which of your levels he stands, or that he does not stand on that highest level of all where he is fully accountable for what he says and does?" Well, to such legal critics I would reply that it is no small gain to have got rid of a radically bad test, even if we have not a spick-and-span good one to substitute for it, and that the test of a knowledge of the nature and quality of the act and its wrongness in relation to responsibility in disease is radically bad, and is no more a test of responsibility than the acuteness of the colour sense would be of the range of vision. And to these critics I would further point out that it is no small gain to be put on the track, not of a new test—there is no single touchstone for all the metals or for a whole series of alloys,—but on a method of inquiry which will enable us to determine with reasonable scientific surety in a great majority of cases in what degree the will is weakened, that method being simply the established one of medical diagnosis. Disease does and always will present knotty problems to our consideration, but these must always be attacked in exactly the same way, and diseases of the brain are no exception to the rule. We may not at this moment be able to lay down precise rules as to the limitations of the will in disease and how these are to be determined; but in the course of time we shall probably attain to such rules, and meanwhile it is possible for medical men to say, in a large majority of cases, whether and to what extent the will is incapacitated. We can now, by the dynamometer and by electrical tests, definitely declare to what extent voluntary control is impaired in the voluntary muscles or in any set of them, and we are entitled to look forward to the time when we shall be able, not perhaps with equal precision, but still with fair exactitude, to say to what extent voluntary control is impaired in its mental sphere. Even now, by careful clinical studies, by an observation of the grouping and sequence of mental symptoms, and of the bodily symptoms which accompany them, we are able, in most cases that are submitted to us, to return with reasonable confidence an answer to the question, "Could he help it?" And we can do this in certain cases in which, but for our assistance and medical diagnosis, an erroneous conclusion would almost inevitably be arrived at. A man who had spoken freely on the previous day, when brought into court in the morning and charged with a serious crime, returns no answer to the indictment. When asked whether he is guilty or not guilty, he simply stares at the questioner, and although he evidently understands all that is said to him, and follows out verbal directions given to him, yet not one word does he reply to any interrogation addressed to him. Is he silent of malice or of the visitation of God? Being again questioned by the judge, the policeman behind gives him a push to direct his attention to the Bench, upon which he turns round and swears at that policeman in good set terms. Everyone in court laughs, and it is clear that the prisoner is an impostor, shamming dumbness, who, had he lived a few centuries ago, would have undergone the *peine forte et dure*. But, to make quite sure, a medical man is asked to examine him, and finds that there is loss of power in the right hand, the prisoner being a right-handed man; that his tongue when protruded is turned to the right; that the left corner of his mouth is drawn up when he shows his teeth; and that he labours under mitral stenosis, and he is therefore able to state upon his oath that the man is dumb—not of malice, but of the visitation of God; that he is aphasic, and could not speak if he would, and that the utterance of an oath or interjection, under provocation, is not incompatible with dumbness under such circumstances. A youth, who has expectations on the death of his mother, and who does not live happily with her, one morning, when she enters the parlour in which he is seated, accompanied by a maidservant, rises from his chair, glares at her, goes to the corner of the room where a gun stands, cocks it, raises it to his shoulder, and shoots her dead. When taken into custody, he says he knows nothing about the occurrence, and, considering the complexity of the several steps in it, his statement appears incredible; but a medical man who sees him at once finds that he has been subject to epileptic fits since puberty; that his pupils are dilated; that his tongue bears the mark of a recent bite; that there are many minute red puncta, like flea-bites, over his forehead, throat, and chest; that he has voided urine in the chair in which he sat; and that he often has done odd things after his fits. And the medical witness is therefore able to testify with conviction that the youth's account of his crime is correct, and that he was deprived of volition and reduced to mental automatism when he shot his mother.

A multiplicity of cases might be suggested in which an answer to the question, "Could he help it?" in the case of a person accused of crime, an answer to which the knowledge of the nature and quality of the act test could never give a clue, may be readily supplied by strictly medical testimony. And this brings me to the value of expert testimony in establishing the nature of insanity in courts of law.

It seems to me that nothing has more retarded an approach to a just appreciation of the relations of responsibility and disease than the assent, tacit or explicit, generally given to the dogma that the existence of insanity is a question for men of common sense—a question which they are quite as capable of deciding as medical men or experts. The late Lord Shaftesbury, who, by his philanthropic labours, conferred such signal benefits on the insane, did some disservice to medical jurisprudence when he lent the weight of his authority to this doctrine, and maintained that "persons of common sense, conversant with the world, and having a practical knowledge of mankind, brought into the presence of a lunatic, would in a short time find out whether he was or was not capable of managing his own affairs"; and the late Sir Benjamin Brodie erred, I think, still more grievously when he said: "It is a great mistake to suppose that this is a question (unsoundness of mind) which can be determined only by medical practitioners. Anyone of common sense, and having a fair knowledge of

human nature, who will give it due consideration, is competent to form an opinion on it; and it belongs fully as much to those whose office it is to administer the law as it does to the medical profession."

Now, it may be admitted that there was a time when medical science was in its infancy, when the functions of the brain were unknown, and when only metaphysical explanations of insanity were attempted, at which the existence of insanity in any given case might have been as correctly determined by plain unsophisticated men as by pretentious empirics; just as there was a time when morbid anatomy had not been studied, and when chemical analysis was in a rudimentary stage, at which the existence of poison as a cause of death in any given case might have been as correctly determined by unlearned men as by the alchemists of the period. Further, it may be granted that there are an immense number of cases of insanity in which the symptoms of the disease are so obvious and external, that special skill, although requisite to interpret these symptoms, explain their causes, predict their results, and prescribe treatment, is not necessary to their identification; just as there are many cases of poisoning in which the facts as to the purchase and administration of the deleterious agent are so clearly established, and the immediate consequences to which it gave rise are so patent, that the scientific evidence which would elucidate the composition of the poison, its mode of action and appropriate antidotes, may be safely dispensed with in bringing home guilt to the criminal. But, beyond all this, there are, it must be maintained, cases of insanity of so obscure and subtle a nature that they can only be properly identified by those who have made themselves intimately acquainted with the functions of the nervous system in health and disease, and who have by experience come to appreciate the significance of combinations of mental phenomena and of concomitant bodily variations, which would appear meaningless to the uninitiated; just as there are cases of poisoning so secret and ambiguous that they could not be brought to light without the aid of the toxicologist, who can extract from the tissue and demonstrate in his test tube the lethal substance. In every case of alleged murder by poisoning, the question whether poison was administered with a fatal result and malicious intention is one for the common sense of the jury to decide; but in nine cases out of ten the evidence on which the decision is founded is made up in great part of scientific observations and inferences, which are quite beyond their knowledge and comprehension, and which they are obliged to take on trust. Neither judge nor jury can have any personal knowledge of the symptoms of arsenical poisoning, of the appearances which it leaves after death, or of the processes by which the presence of arsenic in the organs of the body is proved. They may, perhaps, know by hearsay that arsenic causes vomiting and purging, and leaves an inflamed stomach; but they would probably view without suspicion the group of symptoms which would at once suggest arsenical poisoning to a medical man, they would detect nothing abnormal in those changes in the mucous lining of the gastro-intestinal canal which to the trained eye would be specific, and they would be absolutely incapable of following the tests by sulphuretted hydrogen, by silver and copper, by Marsh's and Reinsch's processes, by which the presence of arsenic in the stomach, liver, and kidneys was put beyond doubt. They would have to receive the evidence of experts given upon oath, and subject to criticism and correction by other experts, that the symptoms and post-mortem appearances were those which are caused by arsenic, and that arsenic to a certain amount was found in the body. Their common sense could never conduct them to these conclusions, and in many poisoning cases justice would be frustrated without expert testimony. Now, what I want to argue is that in cases of crime in which the defence of insanity is set up, the common-sense jury, while they must finally decide whether the insanity existed, and in such a degree as to have reduced the prisoner to the condition in which he could not help doing what he did, must be guided to their decision by expert testimony, the force of which they cannot always understand, just as they are in cases of poisoning.

Of course Lord Bramwell denies this, disputes the value of expert evidence, and adheres tenaciously to the old doctrine. "It is contended," he says, "that medical men, and especially those who have experience in dealing with insane persons, have a special right to give opinions when a question of insanity is raised, that it is a question for experts, and that they are experts. I wholly deny it. I have heard the late Lord Campbell, the Chief Justice, say the same, and object to the question, 'Was the man sane?' saying, 'That is a question for the jury. Insanity is no more a question for an expert than lameness. Is the man lame? Is he mad?'" This sounds decisive, but it is really, it seems to me, fallacious reasoning, for, to take Lord Bramwell on the ground which he himself selects, I must remind you that lameness is an outward defect directly cognisable, while insanity is an inward disablement, the existence of which can only be inferentially ascertained. Anyone may satisfy himself that a man has a wen on his head, but only an expert is entitled to declare that he has a cavity in his lung. Then even lameness may be a question for an expert. There are cases of lameness, just as there are cases of insanity, that are unmistakable. A limp, owing to the fact that one leg is three inches shorter than the other, cannot be overlooked any more than the ravings and violence of a maniac. Who runs may read in either case. But there are minor degrees and incipient stages of lameness, and particular kinds of lameness, that can only be detected by a medical man. Thus only an expert, and an able one too, can in some cases distinguish between the lameness that is real and that which is assumed. I am but quoting a not uncommon experience when I recall the case of a young lady who had been pronounced lame by the common sense of a large and sympathetic family circle, and even by a country doctor, and who after having been confined to her couch for many months rose and walked nimbly out of the room when told by an expert (Dr. Buzzard, who had formed his judgment on those electrical tests which only an expert can employ) that she was not lame at all, and had been imposing on her friends. And where lameness is genuine enough it may remain undiscovered by those who have not been taught how to look for it. Some years ago I was waiting for a train at a station in the north, and was sauntering up and down the platform with a very able man, a county magistrate, when we saw in front of us a gentleman known to both of us, who was also walking about while waiting for his train. Immediately on looking at that gentleman I said to my friend, "Do you not notice that Mr. A. B. is a little lame?" to which my friend replied, after a good look, "No, not at all; that is his usual style of walking." I tried hard to make my friend see that Mr. A. B. was a little lame, that he kept his eyes fixed on the ground when walking, threw his legs outward and forward stiffly and with a jerk, and brought his feet down with a thump, exhibiting, indeed, what we know so well as the ataxic gait. But it was in vain. My friend merely replied that Mr. A. B. always was a stiff thick-set little man, and he smiled incredulously when I told him that not only was he lame, but that his lameness betokened a serious disease of the spinal cord. Within six months, however, my friend came to me and said, "You were quite right about Mr. A. B. His lameness has increased rapidly. He has been twice to London, and had joints which he supposed to be dislocated put in by a fashionable bone-setter, and he is now getting quite paralysed. In another two years Mr. A. B. died of tabes dorsalis. Now my diagnosis of lameness in this case, when neither the patient nor his friends suspected it, and when, had he been charged with lameness as an offence, he would certainly have been acquitted by a common-sense jury—a diagnosis which any medical man could have made,—shows, I think, that Lord Bramwell is in error in depreciating the value of expert testimony even in so simple a matter as lameness. And if in so simple a matter as lameness expert testimony is sometimes needful, how much more essential must it be in conditions that are more hidden and complicated. Drunkenness, we are told, is, like lameness and insanity, a matter of fact. "If I see that the man is drunk," Lord Bramwell, I fancy, would say, "I cannot help thinking so even if a Paget said he was not"; but in thus thinking and ignoring special knowledge he might do a grievous wrong. A man was seen to reel in the street, to fall, and then to vomit, and the vomited matter smelt of brandy, so a policeman took him to the station and charged him with being drunk and incapable. But the man protested that he was not drunk, having only taken one glass of brandy when he began to feel ill, and so the police surgeon was sent for to examine him, who, finding tonic contraction of the muscles of the neck, staggering gait with a tendency to fall forwards, double optic neuritis, and oscillating movements of the eyeballs, was able to certify that he was not intoxicated, but suffering

from a tumour of the middle lobe of the cerebellum. No one but a doctor could in this case have distinguished between drunkenness and a fatal disease, and, but for the intervention of an expert, an unfortunate man might have had a gross stigma put on his reputation. And so in many cases in which insanity, which is a far more occult condition than lameness or drunkenness, is in question, expert testimony is really essential to decide whether the man is mad, and whether his madness is of a kind that deprives him of self-control. A man who is known to have quarrelled with his wife at times kills her one night, gives himself up to the police, and conducts himself in prison so rationally that no one suspects him of mental unsoundness, and he would undoubtedly be hanged but for the evidence of a medical man sent to see him. The medical man (making out that he had been depressed in spirits, and had harboured all sorts of hypochondriacal delusions for months before committing the murder, that he is profoundly anæmic, that his mother died in a lunatic asylum, that two uncles had been insane, and that he himself had been shut up in an asylum after an attempt at suicide during a previous attack of melancholia) feels warranted in declaring confidently that his own account of his crime—which was that, after being entirely sleepless for some nights, a strange rushing came into his ears and a dimness in his eyes, and a trembling all over, so that he felt he must kill his wife, whom he loved dearly, and so did it, and felt better immediately—was perfectly consistent with our knowledge of the way in which impulses arise in the course of melancholia, and that our experience of such cases, and the constant observation of large numbers of them, have convinced us that enfeeblement of will is characteristic of them, and that there occur during their progress impulses which it is impossible by any effort or under any intimidation to resist. And a case which Lord Bramwell himself suggests may be used to illustrate the value of expert evidence. "Take the case of stealing," he says, "with proof that the offender believes he is King of England. Suppose a case of deliberate stealing; he goes to a shop, has goods shown him, and secretes some or picks a pocket. He has a delusion unconnected with his crime. What is to be done with him? Is he to be acquitted? Is he to be half-punished? He is more dangerous than the sane; more in need of a strong deterrent; is he to be less warned and fortified? It cannot be; pitied let him be, but punished he must be; the public conscience would revolt if he was not." And why so? Because Lord Bramwell chooses to conclude that his delusion was unconnected with his crime, whereas expert testimony would unhesitatingly affirm that his delusion was probably the very essence of his crime. When a man, labouring under the optimistic or exalted delusion that he is King of England, commits a larceny, the chances are a hundred to one that he is labouring under general paralysis, fully believes that the whole universe belongs to him, and that he is legally entitled to take whatever he desires, even if he has to do so surreptitiously to avoid trouble, and suffers at the same time from hopeless enfeeblement of the will, both in its muscular and mental spheres. The voluntary muscles in such a man, as might be demonstrated to Lord Bramwell at any moment, tremble and quiver, and have lost their cunning while his thoughts roll on through cloudy immensity, do what he may to condense or direct them. He is, in fact, a dying man, not to be warned or fortified in any way, and to punish him ought to revolt the public conscience much more than to let him go scot free.

If insanity is not a question for an expert, I would ask—How comes it that medical men and not plain men of common sense are called on to sign the certificates and affidavits on which a lunatic is deprived of his liberty or the control of his affairs? How comes it that, in spite of the repeated declarations of judges that expert testimony is of no special value, medical men are still invariably summoned as witnesses in lunacy cases? How comes it that the Lords Justices—the most eminent of judges,—whenever the competency of an alleged lunatic to demand that the inquiry into his mental state shall take place before a jury, or whenever the recovery of a lunatic, so found by inquisition, is in question on his application for a *supersedeas*, require a medical report, and will not receive one from even an experienced legal official? The fact is that practically the utility of expert testimony in insanity is acknowledged, and it is difficult to understand how it could be otherwise, for all who have made only a superficial study of mental diseases must perceive that there are in them little signs and symptoms, perversions of thought and derangements of bodily functions, which would altogether escape the notice of common sense, but warrant an expert, founding on his experience, in proclaiming that the will is reduced to impotency, and that the lunatic cannot control himself. There is something in the appearance, manner, and mode of expression of lunatics of various classes which would pass unnoticed by common sense, but be characteristic to those who had been accustomed to watch them narrowly. There are styles of morbid thought which cannot be simulated. There are latent or concealed delusions which start into view when the appropriate spring is touched. There is the order in disorder of dissolution which cannot be imitated. There are types of delusions and hallucinations which are easily recognised. And, above all, there are physical signs of disorder of the brain and nervous system which correspond with certain stages in the degradation of will power. But physical signs and mental symptoms in insanity can only be clearly understood in their relation to voluntary control by an expert, whose testimony is therefore of the first consequence when the range of such voluntary control is in question.

To the expert witness in cases of insanity and crime these questions should, it seems to me, be put: Was the prisoner insane at the time when he committed the act of which he is accused? Was his insanity of such a nature and degree as to deprive him of control over his conduct? What are the grounds upon which you have formed these opinions? It would then remain for the jury, aided by the judge, and with the assistance of other experts if necessary, to decide on the validity of the grounds stated and on the weight to be attached to the opinions expressed.

Expert testimony, to be of the highest value, ought of course to be founded on an examination, or, better still, on repeated examinations, of the accused, made as soon as possible after the perpetration of the crime. The Government have, in several recent cases in which there was a likelihood that the defence of insanity would be set up, secured the highly skilled and expert services of Dr. Charlton Bastian to conduct such examinations, and this is an immense step in the right direction. His verdict as a psychologist and neurologist commands the confidence of the medical profession, and has never been impugned in any way. But insanity is a chronic disease; and even when the expert has not seen the alleged lunatic until some time after his crime, he may still be able to say whether in the course of a disease still existing, or of the recent existence of which there are traces, such a criminal act was likely to crop up as part and parcel of the disease; and whether it is consistent with his experience and with the history of the act that the accused could not help it. When the crime was committed during a temporary paroxysm of madness or during an attack from which recovery has taken place before the examination has been ordered, it may still be possible for an expert to say whether the symptoms described to him form a true picture of mental disease or are only a spurious copy, and whether any wreckage still marks the course of a nerve storm. Sometimes it will be impossible for an expert to make up his mind either one way or the other, and then it is his duty plainly to say so.

And now, gentlemen, before I close I have a practical suggestion to offer which would, if adopted, I venture to believe, do more to reconcile the great professions of law and medicine on the questions at issue between them respecting insanity and crime than any prolongation of those elaborate and sometimes highly spiced logomachies in which they have both indulged in the past. In medical science and practice little progress would be made were we to stop short at diagnosis in our studies of disease, and refrain from verifying or refuting the opinions to which the symptoms and history have conducted us by subsequent observations. Prediction is the test of science, and adaptation is the measure of its power. Astronomy is accepted by the masses of mankind because its professors can foretell eclipses and the transits of stars; chemistry is revered because it can join together the elements and provide for many of our wants; and medical science is entitled to popular confidence just in proportion as it can forecast the course and terminations of disease, and the ravages which, when triumphant, it will be found to have wrought in the textures of the body, and can, by a fresh

adjustment of conditions, prevent its propagation, arrest or retard its march, or modify its features. But the invaluable aid which subsequent observation affords to medical science has been almost altogether dispensed with in the medical jurisprudence of insanity, and no wonder, therefore, that that branch of medical science is held in low esteem. A man charged with murder is declared to have been insane at the time he committed the crime. A wrangle upon the subject between doctors and lawyers engaged on this side and that takes place in court, and is carried on perhaps for a short time afterwards in newspaper columns by editors and crotcheteers, and then no more is heard of the case. The man is either hanged—and under these circumstances, I admit, very few subsequent observations are possible—or he is sent to Broadmoor, where careful subsequent observations are made and recorded during the rest of his days—observations which could not fail to reflect an instructive light on the proceedings at his trial, and to supply indications for guidance in similar cases, but which remain buried in oblivion. Now, what I desire is to obtain publicity for subsequent observations on insane criminals, and to secure that these observations shall be of a thorough and impartial description. Every year a certain number of prisoners charged with murder are, on arraignment, generally on medical testimony, pronounced incapable of pleading; or are, after trial, and again generally on medical testimony, acquitted on the ground of insanity (to use the old phrase); or found guilty, but declared to have been insane when they committed the act (to use the new one); or are, after having been found guilty, sentenced to death and left for execution, and, again almost invariably, in consequence of medical intervention, reprieved on the ground of insanity. All these are swallowed up in Broadmoor Asylum, and nothing more is ever heard of them except by their own relatives. True, when these criminal lunatics come to die, there is inserted in the appendix to the annual report of the asylum a few brief notes of his or her case, together with a summary of the pathological changes revealed in the brain and other viscera on post-mortem examination; but these notes, although most ably and carefully prepared under the supervision of the former gifted medical superintendent of the asylum, Dr. Orange, and his energetic successor, Dr. Nicolson, are only distinguished by initials, are technical in expression, do not convey information sufficient to warrant a judgment upon the whole case, and are only seen by those who are specially engaged in the treatment of insanity. What is wanted is a series of skilled and sustained observations on homicides who have escaped punishment on the plea of insanity, made by competent and unbiased authorities, couched in language understanded of the people, and published from time to time. And in order that such a series of observations may be pursued, I would propose the appointment of a committee or commission, composed in equal parts of lawyers and medical men, whose duty it should be to visit Broadmoor Asylum as often as they might deem expedient, to examine individually all patients detained there who have been charged with murder, and also the officers of the asylum, and its case-books and registers, and to report to Parliament annually on the mental condition of every such patient, with special reference to the circumstances of the crime of which he or she was accused, and the evidence adduced at his or her trial, adding such remarks on the relations of insanity and crime, and such recommendations for alterations of the law, as their experience may suggest to them.

The report of a Criminal Lunacy Inquiry Commission, or Committee, thus constituted and empowered, would, we can scarcely doubt, be received yearly with eager interest, and be reproduced and commented on in the public press, and especial curiosity would be displayed in connexion with such portions of it as dealt with cases of great doubt and difficulty which had exercised the public mind powerfully. And the knowledge that such a report would be forthcoming annually would, I venture to think, have a salutary and sobering effect on many of those engaged in cases of murder in which the defence of insanity is set up, by reminding them that they might be accountable for their words to the tribunal of public opinion in a stricter sense than heretofore. Looking forward to such reports, the faithful scientific witness would speak with confidence, assured that his evidence, although it might appear strained at the time, would be confirmed by events; while the pseudo-scientific witness, if there be any such, who is led into the box by a thirst for notoriety or a spurious philanthropy, would pause before committing himself to statements which might rise up in judgment against him in a very damaging and persistent way. And there can be no impropriety in alleging that such reports would ultimately prove useful to judges and counsel, not by rendering them more careful, for nothing can exceed the caution with which they now proceed in murder trials, but by removing misconceptions under which they have laboured, and convincing them that there are more things in heaven and earth than are dreamt of in legal philosophy. It would be no small gain to bear in upon the minds of some of them, as the madhouse memoirs of such reports would sometimes assuredly do, that a nominal knowledge of right and wrong is not incompatible with a total bereavement of self-control and complete subjection to strong delusion, and that a man who, looked at from a distance, is apparently a voluntary organism, may turn out on close scrutiny to be a mere simulacrum driven about by morbid impulses and casual suggestions as helplessly as is a paper butterfly in the air currents set in motion by a Japanese fan. There is not a doctor amongst us who will not allow that he has had to abandon a diagnosis, formed perhaps with the utmost discrimination and held with confidence, because of the inexorable logic of the progress of the case; and there are, I opine, few judges on the Bench or counsel at the Bar who might not be edified by having brought under their notice now and again the later chapters of a case involving medical considerations with which they had had to deal at a critical epoch in its history.

Upon the general public, too, and our teachers in the press, such reports would have an educational effect, and gradually build up more correct notions than are now prevalent as to the nature of insanity and the kinds of proof which go to establish its existence. I have often thought, when looking at a case of advanced insanity which in an early phase had been a subject of public inquiry, how abashed would be some writers and correspondents who had impugned the decision arrived at and inveighed against the lunacy laws, could they but see the natural development of the canker the existence of which they had at one time denied; and surely the glimpses into Broadmoor which the reports of a Criminal Lunacy Inquiry Commission would afford would go far to impress moderation on our censors, and satisfy them that what seem "trifles light as air" may be, in questions of madness, "confirmations strong as proofs of holy writ," and that minute symptoms which doctors are laughed at for enumerating may prove of serious import.

And, beyond all this, the deliberations of such a commission as I have suggested would, as I have hinted, conduce in some degree to an agreement between lawyers and doctors on the question of insanity and crime. It is in the atmosphere of the courts of law that differences between them spring up, differences which in private conference speedily dwindle away. It is about theoretical definitions and verbal distinctions that they contend; and whenever they are brought together in actual contact over a case anywhere save in a court of law, the lawyers with striking aptitude adopt the scientific standpoint, and harmony results. My experience of the Board of which I am myself a member—that of the Lord Chancellor's Visitors, which is made up of three lawyers and two doctors—justifies me in saying this; and the experience of the Board of Commissioners in Lunacy, which is made up of three lawyers and three doctors, is, I understand, to the same effect. The severe intellectual training which a barrister goes through, the art which he acquires in his professional practice of sifting evidence and of concentrating his attention upon minute details, as in reading judicial decisions, prepares him to look with insight and judgment upon cases of insanity when they are brought under his personal notice; and I believe I shall be correct in saying that he generally takes to the study of such cases when called upon to do so, with keen scientific interest, and rapidly attains a breadth of view regarding them not inferior to that of any doctor. I anticipate, therefore, that in a Criminal Lunacy Inquiry Commission composed of lawyers and doctors no divergence of opinion would occur. The two wings of the Commission would feel each other's difficulties, and compensate each other's shortcomings. The lawyers would come to realise the incompleteness of the law, and to attach due importance to delicate and obscure forms of

disease of the brain; and the doctors would come to realise the still fragmentary character of their science, and to attach due importance to that maintenance of the universal in its conflicts with the individual will upon which trade, industry, art, and science depend. The recommendations of the commission would, in all likelihood, lead to such amendment of the law as would put an end to conflicts in courts of justice on questions of responsibility and disease.

A CASE OF INTUSSUSCEPTION OF THE CÆCUM, ASCENDING AND TRANSVERSE COLON, TREATED BY ABDOMINAL SECTION, WITH SUCCESS.

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IN view of the comparative rarity of successful operations for intussusception I desire to place the following upon record. It appears to furnish additional evidence, if any is wanted, that abdominal section may be safely undertaken for this condition in its earlier stages even in young children, and ought, therefore, to be resorted to at once if other simpler methods of reduction fail.

Charles S——, aged four years, was admitted into University College Hospital on Aug. 25th, 1887. He had always been a healthy child, and had had no illnesses except measles and whooping-cough; he had been run over by a cab four months before, the wheel passing across his chest. His health had been excellent up to the day before admission; his bowels had been opened at 10 A.M., and he had gone to school and returned quite well. Nothing was noted up to bed-time, but at about 3 o'clock in the morning the child awoke, complaining of pain in the abdomen. He then passed a stool, which was fairly loose, but with no relief of the pain. A little later he tried to defecate, and brought away about a wineglassful of blood, and half an hour later some more. From this time on until 2 P.M., when I first saw him, he continued to lose blood from the rectum at short intervals. On admission, he lay with his legs drawn up and resisted examination. An ill-defined tumour could be felt in the left iliac fossa. The finger introduced into the rectum reached nothing abnormal at first, but was covered with blood and mucus on being withdrawn. When I examined the child his state was as above, but I thought at one moment that I could reach a tumour in the bowel by the rectum. But even uncertainty on this point in no way influenced the diagnosis of intussusception of the large intestine, which appeared quite clear from the history, symptoms, and the presence of a hard tumour in the left iliac region. I therefore proceeded to distend the rectum and colon with water to as large an extent as appeared safe, and this seemed to have the effect of getting rid of the tumour as far as manual examination went. On my return, however, to see the patient at 7 P.M., I found that he had continued in great pain, and to pass blood from the rectum, and that the tumour was as clearly present as before. I therefore decided at once to operate. All antiseptic precautions having been taken and chloroform having been given, I made an incision in the middle line from the umbilicus downwards for about 2½ in. The carbolic spray was only turned on a moment before the peritoneum was opened. On passing in my hand, I found the intussusception without difficulty in the left hypochondrium, but could not at first draw it into view. The incision was therefore prolonged about an inch upwards to the left of the umbilicus, and I was then able to manipulate the mass within the abdomen, though with some difficulty. By drawing upon the intussuscipiens from below with the finger and thumb of one hand, and squeezing it upon the intussusceptum with the other finger and thumb, I was able to force the latter upwards and to the right, and gradually to unravel it (still within the abdomen). This was somewhat assisted by drawing upon the portion of bowel which ran into the intussusceptum from above, but was almost entirely accomplished by squeezing the latter from below and at the same time gathering in the slack in my fingers. There was a little difficulty in reducing the last portion; but this was soon overcome by steady pushing and drawing. The bowel was much congested and marked by submucous hæmorrhages, but was not very œdematous. When satisfied that the intussusception was perfectly reduced, some coils of protruded intestine were washed and the abdominal cavity mopped out with warm carbolised sponges, and closed in the usual way with seven or eight stout silk sutures. A dressing of salicylic wool was then applied after the wound had been dusted with iodoform, and the abdomen was firmly bandaged. The whole operation and dressing was finished within thirty-five minutes, and the patient bore it very well.

Immediately after the operation the child was given four minims of the tincture of opium, followed by two minims every two hours until the morning of the 27th. On the day following the operation (26th) the child was sick four or five times, probably from the effect of the chloroform, but not afterwards. He was restricted to a milk diet, given in very small quantity. During the night of the 26th the bandage round the abdomen, which was very tight, was loosened a little, giving considerable relief, and on the 27th I examined the wound and found it all that could be desired. The opium was then stopped and a little brandy was given with the milk. On the 28th he was given a little chicken broth, and the bowels were moved naturally for the first time. As soon as the heaviness of the opium passed off he seemed very well. The wound was again examined and redressed on the 20th, and looked perfectly satisfactory, and on the 31st he had a second stool naturally. He was then allowed to have some light solids. On Sept. 2nd the wound was dressed again and for the last time, the stitches being removed; a broad strapping of American plaster was put completely round the body to support the scar. After this there is nothing to note except that the child seemed quite well. During the first three days after the operation the temperature touched 101·2° on two occasions, but was usually below 100°, and after the third day was always so until the patient was discharged on Sept. 16th quite well.

The operation was relatively a short one and was not very difficult. This was due to the fact that the method of unravelling the bowel by traction and squeezing from below, rather than by traction on the included bowel from above, was resorted to at once.

Having been more than once deceived by the disappearance of the tumour under inflation or injection into the belief that I had reduced an intussusception, I was quite prepared for a return of both tumour and symptoms in this case, and found little difficulty in making up my mind to adopt the only other means of saving the patient's life—namely, abdominal section. The age of the patient added, perhaps, to the gravity of the procedure; but there was the hope that by operating early, while the child's strength was unimpaired and before serious structural changes had taken place in the bowel, the result would be quite different from that usually seen where abdominal section is undertaken. In this case the degree of strangulation or incarceration must have been very considerable, for blood was constantly being passed from the rectum, and when exposed by operation the bowel was seen to be deeply marked by ecchymoses. Nevertheless, the reduction of the intussusception offered no insuperable obstacles, the pressure of the mass between the fingers combined with traction on the intussuscipiens from below, probably unloading the vessels of the congested part, and so enabling it to slip up within a short time.

The few cases on record in which, like the present, an intussusception has been cured by abdominal section appear to me to open up a very large question. This has already been discussed by Mr. Hutchinson in his well-known classical paper published in the Transactions of the Medical and Chirurgical Society thirteen years ago, and by Mr. Marsh a little later, also by Mr. Howse conjointly with the late Dr. Hilton Fagge in a paper worthy of its authors. But it is a remarkable fact that in spite of the strong arguments in favour of this method of treatment of a very hopeless condition furnished by these gentlemen, and the three successful cases recorded by them together with one by Mr. Godlee, we have heard little or nothing of it within the last twelve years. As a matter of fact, there has not been, so far as I know, a single case of successful laparotomy for intussusception recorded in London during all these years, except Mr. Godlee's, until the present case. Now, what is the reason for this? Either intussusception is not such a common disease as formerly, and there has been no occasion at all to resort to severe methods of treating it; or some

other method, safer and easier than laparotomy, has come into general use in the meanwhile; or, finally, laparotomy has proved itself a particularly dangerous procedure, especially in the case of young children.

Now I do not think it will be asserted that intussusception is less common now than formerly. An appeal to our hospital records would show that just as many cases are admitted yearly as of old. And, as to the second proposition, I do not think that it has been shown that such great improvements in the methods of reduction of intussusception by inflation and injection have been introduced to the notice of the profession as to win its confidence and come into general use. I am aware that in Mr. Lund's apparatus for distending the lower bowel we possess, perhaps, the most perfect appliance yet designed for the purpose; but I have yet to learn that it has effected a revolution in the treatment of intussusception or removed the objections to the method of injection—viz., the danger of bursting the bowel, an accident which has frequently occurred. And as to the third question, whether laparotomy should be regarded as a hazardous procedure, especially in the young, experience is showing us every day that it has no special risks in the hands of careful surgeons, and that each day it is being simplified and improved. As to its propriety in the case of young children, in all of the successful cases above cited the age was below five years and the operation was well borne in three, although performed under difficult circumstances in two cases.

I venture then once more to urge what has been so ably and elaborately pleaded in the papers to which I have alluded—namely, that laparotomy offers a far more satisfactory and a safer means of treating intussusception than the methods hitherto in use, and has been shown by experience so far to have a strong claim upon the consideration of physicians and surgeons. Of course, no one would think of resorting to abdominal section until the milder means of inflation and injection had been given a fair trial. But just as in the case of herniæ, we are prepared without hesitation and at once to resort to herniotomy on the failure of properly applied taxis, so, I venture to urge, we should be prepared at once, and without hesitation, to open the abdomen in those cases of intussusception which are not speedily reduced by injection or inflation. It may be objected that there are cases in which, when the abdomen has been opened, the condition will be found irreducible. This will only be true if the operation be undertaken late, and in such cases it is certain that injection could not effect reduction, and would most probably burst the bowel if persisted in. It has been demonstrated by Dr. Fagge and Mr. Howse that two very different conditions are met with in intussusception, one which has been called "incarceration," and the other "strangulation." In the first, which almost certainly runs into the second if neglected, reduction may be effected in every case by laparotomy, if the method of working from below upwards be adopted. But if the bowel by neglect has been allowed to run into the second stage—i.e., of strangulation, it is questionable whether any operative treatment, whether per anum or per abdomen, should be employed, at all events in children, whose powers by this time will be too exhausted for laparotomy, while inflation could do no good, and would probably lead to perforation.

I venture to think that this whole question of the treatment of intussusception is well worthy of the attention of the profession, and in bringing forward this case I have hoped pointedly to draw attention to it. I have hoped also once more to direct attention to those very valuable papers on the subject to which allusion has been made, and in which many of the points here only briefly referred to are handled in detail and in a masterly manner. The case now recorded serves but to emphasise the conclusions therein arrived at, and especially one which Mr. Hutchinson specially lays stress upon. He says: "It is my impression ..... that in future operations the lower end of the invaginated tract ought always to be first sought, and that reduction ought to be accomplished by squeezing it or pulling the sheath downwards, rather than by attempting to pull the contained tube out. I am not at all sure that in some cases this might not be accomplished without bringing the parts into view. Should this not be found practicable, however, it is probable that the operator will find it much more easy in cases of intussusception into the descending colon to bring the lower part into the wound than the upper one. It is the more necessary to draw attention to these points because they are both probably unlikely to occur of themselves to the operator's mind." In my own case the invaginated portion of gut could not be drawn out of the wound, and was entirely reduced within the abdomen by the method advocated by Mr. Hutchinson and just quoted.

(To be concluded.)

THE SULPHUR SPRINGS OF GREAT BRITAIN AND THEIR THERAPEUTIC ACTION.

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AT this season of the year, when holiday plans are made with a view both to health and pleasure, it may be well to consider the advantages offered by our own mineral springs, and to compare them with those of various continental spas. Visits to different health resorts often prove beneficial by mere change of air, of scene, of society, amusements, or occupation; most so by suitability of the climate selected, and in some degree by the directly medicinal properties of their mineral waters. To these last qualities attention is now directed, and chiefly to the efficacy and mode of action of the sulphurous waters. Many of our more noted health resorts are serviceable to the residents and visitors more by their climate, elevation of site, freshness of air, and by the purity of the water than by any mineral impregnation of it. Malvern is a capital instance in all these points. They are to be found on the chalk hills around London, at Chagford in Devon, Hinckley in Leicestershire, Otley or Ilkley in Yorkshire, and many other places in the north of England, in Scotland, and in Wales. The above qualities add to the efficacy of the small amount of iron found at Tunbridge Wells, or at San Moritz; with other excitants they aid the somewhat stronger chalybeate at Spa. The action of the equally potent alkaline waters of Vichy and of Vals is modified by the mild climate (hot in summer) of Vichy, and the more bracing effect of the higher site of Vals. The slightly mineralised waters of Contrexéville and of Buxton owe much of their efficacy to the elevated position in which they are used, both places being at a similar height above the sea-level. Thermal baths in the summer, when too relaxing in sheltered or low-lying situations, can still be enjoyed at Plombières, 1310 feet above the level of the sea.

Impaired health is not limited to one season of the year, and though our means of restoration are restricted, yet suitable places for rest and treatment are always to be found. In winter days the more delicate patients return to the home fireside or seek sunshine on southern coasts; some less invalided sufferers can still benefit by the pure cold air of the more elevated or northerly stations, or join in the out-door exercises and amusements of Leamington or Cheltenham. The claims of our own country in these advantages are too often neglected; the health resorts around us are remarkably varied, the benefits they offer are available at all seasons, and to all; to reach them no distant separation from friends and home is involved, the fatigues of a long journey and the discomforts of crossing the sea are avoided. Our own mineral springs are as rich in medicinal properties and as varied as those most visited abroad. The bromo-iodides of the Woodhall Spa exceed the proportion yielded by the Kreuznach water. The thermal springs of Bath and the highly mineralised waters of Harrogate surpass those of Aix-la-Chapelle and Aix-les-Bains in the qualities for which they are famed. In sulphurous property the stronger Harrogate water exceeds the springs of Germany or Savoy; this is itself surpassed by that of Strathpeffer in Ross-shire; and this again by the Dinsdale sulphur spring.

For pure sulphur medication this source of Dinsdale-on-Tees is unequalled by any sulphurous water source short of the Alps or Pyrenees. Thermal sulphur waters, if useful in aiding some special remedial effects for which they are sought, interfere with other desired objects of treatment, partly by unduly exciting the circulation and increasing the action of the skin. On the other hand, any excess of saline ingredients in combination with sulphur may act unduly either as aperients or diuretics. At Schinznach in Switzerland is a thermal sulphur water with 22 gr. of the sulphates of soda and of lime, 2 gr. of carbonates, 13 gr. of

chlorides, and 3·5 c. in. of sulphuretted hydrogen to the litre or wine-quart. The Dinsdale spring has, in the same bulk of water, 25 gr. of sulphates, 2 gr. of carbonate, 5 gr. of chloride of sodium, 2 c. in. of CO_2, and 8·32 c. in. of sulphuretted hydrogen, equal to 2½ gr. of sulphur. The Harrogate water has 1·4 c. in. of sulphuretted gases with some carburets, and 137 gr. of salts, chiefly chlorides, in the pint of 20 oz.; numerous other springs are near, of which that with proto-chloride of iron is remarkable. At Strathpeffer are two sulphur springs; the upper contains 18 gr. in 20 oz., chiefly sulphates of soda and lime, with 3½ c. in. of sulphuretted hydrogen; the lower contains 13½ gr. of the same salts, of which 11 gr. are sulphates, with 2½ gr. of common salt; the sulphuretted hydrogen is only 1·7 c. in. to the pint of 20 oz. There is also a strong effervescing chalybeate spring in the neighbourhood.

Dinsdale is not without its chalybeate water at no great distance, less than a mile, from the sulphur spring; moreover, beyond this is another mildly sulphurous water, and also a mineral spring with aperient and diuretic properties; this is likely to prove of considerable utility, both for its special purposes and as an adjunct to the use of the sulphur water and baths. The composition of this new spring, as analysed by A. W. Stokes, F.C.S., F.I.C., is in grains per gallon: sulphate of soda, 32·9; sulphate of magnesia, 37·68; sulphate of lime, 93·0; carbonate of lime, 38·7; chloride of sodium, 9·0; silica, ·56; oxides of iron and alumina, ·42. The water, therefore, contains 219·6 gr. per gallon of solid matters. On further analysis as to its freedom from surface infiltration (the spring has recently been reopened) the organic matters yield nitrogen (present as nitrates), 0·28; nitrites, none; ammonia, 0·0014; albuminoid ammonia, 0·0098; oxygen in fifteen minutes to oxidise the organic matter was 0·019 gr., or in three hours, 0·028. This, he adds, is a sample of an undoubted and valuable mineral water entirely free from pollution. These springs are in a sheltered part of the valley of the Tees. The hotel and baths are near the rocky bed of the river, looking to the south; the new spring is on higher ground, but still sheltered from the north. Cliffs of the lower permian sandstone form picturesque additions to some part of the banks of the rapid stream. A line of fault is traced in the sandstone and adjacent millstone grit, so that geologically it closely resembles Harrogate; both are situated on the margins of the millstone grit, the one being at the northern edge of the Yorkshire coal basin, the other at the southern edge of the Durham coalfields; they are thirty miles apart. Gillsland in Cumberland, on the north-western extremity of the same stretch of raised gritstone, has also sulphur and chalybeate springs. The station of Dinsdale is the next south of Darlington on the Great Northern and North-Eastern Railways.

Modern medicine has done much to confirm and explain the confidence expressed by a long series of sufferers in the remedial effects of the natural sulphur waters. Benefit results from their use in certain stages of convalescence, in most rheumatic accidents, in some constitutional disorders, in many local troubles and diseases, especially of the skin and glandular system, in various nervous affections, and in the numerous chronic disturbances of nutrition that interfere so much with health and comfort. Sulphur medicinally acts in three ways, whether used generally or locally: first, as a stimulant or excitant; second, as an alterative or sedative; third, as a germicide or antiseptic. The first of these effects is seen with crude sulphur when used internally as an aperient, or externally in the ointment as a rubefacient; neither of these actions result from the use of sulphurous waters, nor are they such as are desired by the visitors to sulphur baths. The alterative effects, under the second head, are chiefly sought; these vary from slight excitement to a notable soothing influence on the vessels and nerves, hence the relief of irritability of the surface of the body produced by the mild sulphur baths in certain skin diseases. Sulphur sprinkled on flannel for sciatica, and worn closely to the limb, may act in this way; so also the sulphide of carbon vapour as applied, for the relief of tic or migraine, by a late Harrogate physician. Sulphur given with aperients has little general effect; continued small doses of the confection may have some action of this kind, but none is noticed after the occasional use of the compound liquorice powder. In the stomach sulphur is not acted on by the acid gastric secretions; in the alkaline media of the intestines sulphurets are formed and absorption commences. When first absorbed it is arrested in the liver, and finally expelled after more than one round in the hepatic circulation and the formation of some sulphuretted hydrogen while in contact with carbonic acid in the venous blood. Small doses excite less the activity of the liver, and by frequent repetition more readily pass through the vena cava to the pulmonary circulation. The sulphurets now meet with oxygen and are changed into sulphites and hyposulphites, and thus permeate to the other glandular organs and the skin, and penetrate to the muscles and fibrous tissues. In this way some of the special curative effects in chronic rheumatism may be wrought. Some of the antiseptic properties may be concerned in the alterative effects of sulphur, as in the use of sulphide of calcium in checking the tendency to boils or the effect of the hyposulphites in fermentative dyspepsias. Mialhe has observed that any alkaline sulphuret brought to the surface of the skin gives off sulphydric vapour under the action of its acid secretions, but that the hyposulphites acted on in the same way set free sulphurous acid with some deposit of sulphur, and, in time, possible discolouration of the skin. The most active antiferments of sulphur are thus found in the tissues, just as salicylic acid is always formed when salicine is given; and seeing the controlling power of this agent in rheumatic fever, some action of the same kind may be due to sulphur. Or it may act so as to modify the chemical metabolism of waste matters in the body, and so favour elimination.

In all acute disease, beyond the impaired activity of excretory organs, there is disturbed chemical evolution of the products of denutrition which delay restoration of health. These two factors are also concerned in chronic and subacute diseases in varying degrees and combinations. Thus in gout, while renal changes often check the elimination of urea, there is always incomplete evolution of waste matters, and that imperfect combustion of the results of disassimilation that leads to uric acid being formed in place of urea. Here the chemical change seems to precede the special organic defect, though itself determined by some altered nerve control; this is seen in lead poisoning, where an exactly similar sequence set up by impaired innervation is the first step. In such cases the combination of saline diuretics or aperients, to excite the activity of the excretory functions, with the use of sulphur, may be advantageous. Not so where the weakly or debilitated are concerned, some of whom may benefit from the influence of sulphur under its third category, and most of whom require to use the chalybeate waters so constantly found in the neighbourhood of sulphur springs. Anæmia has always to be combated, both before sulphur medication commences, and during its course. Dr. Blanc of Aix has remarked on the ready oxidation of sulphur in the blood; this affinity for oxygen creates the demand for an increased supply. Hence the necessity and often the desire for outdoor exercises, thereby the activity of the red corpuscles of the blood is increased, and they also increase in number.[1]

The germicide powers of sulphur are well known; sulphur externally and sulphurous acid in the aqueous solution are largely used. Now that the germ or bacillus on which strumous and consumptive disease depends has been put under our view by Koch a much wider field is opened for sulphur medication. The amelioration of many glandular affections in children may thus be explained. Arrest of the devastations of lupus has been noted under the use of sulphur baths and washes long before the nature of the disease was understood; the tubercular bacillus has here lately been detected, and the disease is regarded as a consumption of the skin. The presence of this bacillus in phthisis being demonstrated, it is not surprising to find the use of sulphur attempted as a means of arresting its progress. For this purpose many precautions are needed; in this disease it is of first importance to keep the digestion unimpaired, and the stomach must not be fatigued. All sulphur products are irrespirable; still one of its gases has been used so as to modify some lung symptoms. The time has come when the gradual modification of the phthisical diathesis should receive continuous trial under such favourable hygienic conditions as are known to be requisite in the long contest with so insidious a disease. The sheltered position of Dinsdale offers advantages for such trial; the facilities for frequent change of air to such healthy and exhilarating places as Redcar, Saltburn, Whitby, and Scarborough, with temporary sojourn in the keener climate of Harrogate, would enable young invalids, during all the early summer, autumn,

[1] De l'Action des Eaux d'Aix-les-Bains, Marlioz, et Challes.

and winter to make Dinsdale their headquarters, and the scenery of the Tees, with the great Yorkshire valley and the distant views of the Cleveland Hills, as seen from its northern cliffs, a constant pleasure either to look upon or to remember.

Orchard-street, W.

A CASE OF

MULTIPLE SUPPURATING HYDATIDS OF THE LIVER BURSTING INTO THE PLEURA AND LUNG.

BY EDWARD O. DALY, M.A., M.D. OXON, M.R.C.P.,
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BY a curious coincidence I had under my care within a very short period two cases of suppurating hydatids of the liver. The first was published in THE LANCET of May 19th, 1888; the second is that of J. H——, aged thirty, a labourer, who was admitted into the Hull Royal Infirmary under my care on Feb. 8th, 1887. He had enjoyed excellent health up to the middle of January, when he began to complain of pain in the right side of the chest. He had also frequently vomited. There was no history of previous syphilis, and he had never suffered from dysentery or jaundice. Lately he had lost flesh rapidly. His daily allowance of beer averaged about nine pints. The abdomen on admission was found to be much distended from enlargement of the liver, the lower edge of which could be traced, running across the abdomen, about an inch below the umbilicus. The hepatic dulness extended upwards as far as the fourth rib, measuring in the mammary line from above downwards eight inches and a half. The surface of the liver was smooth, except to the left of the middle line, where a hard and tender nodule could be felt. The other organs appeared healthy. During the first few weeks the physical signs remained unchanged. The temperature and pulse, however, caused one to be suspicious of suppuration, and on March 7th one or two exploratory punctures were made with a hypodermic needle over the hard nodule and in one or two other situations in front, but without result. On March 8th the patient's condition altered very much for the worse. He was suddenly attacked with great dyspnœa and shock. The pulse became frequent, feeble, and small, and the respiration very rapid, and he was unable to lie down in bed. The physical signs were also materially altered, the hepatic dulness had diminished in extent, measuring from above downwards seven inches, instead of eight and a half, and the hard nodule could no longer be felt to the left of the umbilicus. Over the upper lobe of the right lung in front the respiratory sounds were distant, and there was marked hyper-resonance, with deficient fremitus and voice sounds; laterally dulness existed, with absence of fremitus and breathing, whilst behind there was marked dulness over the greater portion of the lung. Over the scapular and inter-scapular region bronchial breathing and bronchophony were marked, and these sounds could be heard, though less distinctly, to the base of the lung. The patient coughed severely, expectorating a large quantity of bile-stained puriform fluid, which, on microscopical examination, was found to be pus. It was therefore concluded that a hepatic abscess had burst partly into the lung and partly into the pleura. An exploratory puncture was made in the mid-axillary line in the fifth space, and some bile-stained serous fluid withdrawn, which was found to have a specific gravity of 1012, and to contain a large amount of albumen. Several specimens of this fluid and of the expectoration were examined microscopically, but only pus cells were observed. About half a pint of serum was obtained from the pleura by aspiration. As the patient expectorated bile-stained pus freely, and the fluid removed from the pleura was found to be merely serous, it was thought advisable to wait and see what nature would do for him. The expectoration gradually diminished in amount, and by March 28th had entirely ceased, though the severity of the symptoms had only slightly abated. It was therefore decided to make some more exploratory punctures, and the needle was inserted into the liver substance between the ninth and tenth ribs behind, over a tender spot complained of by the patient, with the result of withdrawing from an ounce to two ounces of thick pus, which was found to contain hydatid membrane and hooklets. An incision was made by my colleague, Mr. Evans, into the spot from which the pus had been removed, and about a gallon of exceedingly offensive pinkish puriform fluid, containing a large number of cysts, escaped. The cavity was washed out antiseptically, and a large drainage tube inserted. The patient unfortunately died suddenly the next day.

The necropsy showed:—1. The remains of a large cyst in the posterior and upper part of the liver. 2. Several other cysts in different parts of the liver. 3. In front and laterally, the pleura was divided into two separate compartments. The upper and larger contained fluid and hydatids in large numbers; the lateral and lower was almost devoid of fluid. Behind the pleura was thickened and its layers adherent. 4. No evidence was found of previous communication between the lung and the hydatid, but the former was much reduced in size from compression. The reason one had been misled was thus rendered clear. The cyst had pushed up the diaphragmatic pleura, and eventually inflammatory adhesion between it and the pleura lining the lung had divided the pleura into two separate compartments. The upper and larger, into which the cyst burst, contained fluids and hydatids; the lower, which alone had been tapped, did not communicate with the hydatid cyst at all, and was almost devoid of fluid.

There are several points worth notice in connexion with this case:—1. Its obscurity when the patient first came under observation; the diagnosis seemed to rest between (*a*) chronic congestion of the liver due to alcohol, (*b*) lardaceous disease the result of syphilis, and (*c*) malignant disease. There was, however, a complete absence of jaundice, which is usual in chronic congestion; absence of any history or evidence of previous syphilis; the patient's appearance did not at all suggest such a cause as cancer; and the emaciation was not what one would expect in a man with a cancerous liver of such dimensions. After the patient had been under observation two or three weeks the temperature and pulse suggested suppuration; but we were not fortunate enough to hit off the right spot or spots in the liver, and so the nature of the case remained doubtful. The sudden expectoration of bile-stained pus, with the change in the physical signs and symptoms, made the diagnosis of abscess in the liver certain. As, however, the microscopic examination of the fluid showed only pus-cells, the true state of affairs continued undetected. I do not, however, think sufficient care was paid to the examination of the fluid. One should not be content with the examination of two or three specimens, half a dozen or more ought to be very carefully examined. Another point I should certainly not omit in the next doubtful hepatic case I have is to explore with a fine hypodermic needle the posterior aspect of the liver. Several punctures were made in front, but unfortunately only in front. They certainly seemed to do no harm (at least I have never seen any bad results myself), though there may be some slight risk in a case like the present one of setting up suppurative pleurisy. I think, therefore, with more care a correct diagnosis might have been arrived at earlier, though I question whether in this case, where the hydatid was multiple, the result would have been different. 2. Absence of any lengthy previous history. The patient believed he was perfectly sound three weeks prior to admission, the time no doubt when suppuration began. 3. The case shows that an abscess, even of large dimensions, situated in the upper and posterior part of the liver may easily escape detection, and by causing the descent of the lower edge of the liver induce a belief in the uniform enlargement of that organ. 4. An ordinary hydatid is characterised by painless enlargement, which may be very great, but is not uniform in all directions, following one direction in particular. In the present case, from the position of the cyst, the enlargement appeared uniform, and much pain was also complained of. Suppuration of the cyst changes the whole aspect of the case, altering both the characteristics of the fluid and the symptoms. 5. Hydatid tumours are rarely multiple. This case, therefore, was an exception to the general rule. The multiplicity was, no doubt, due to the fact that the patient had swallowed several ova of the tænia, and not, as was once thought, to one cyst being formed from the other by a process of germination. 6. Sudden deaths after operation for suppurating hydatids have been recorded by Bryant, Murchison,

Martineau, and others. In the present case, it was probably due partly to shock, and partly to the small amount of blood lost by a patient whose condition was so precarious.

Hull.

ON CLINICAL THERMOMETRY, AND THE TAKING OF TEMPERATURES.

BY SURGEON-MAJOR BOILEAU, B.A., M.D., &c.,
ARMY MEDICAL STAFF.

The "One-minute" Thermometer delusive, and dangerous to use.—Axillary Temperatures v. Mouth Temperatures.—Time required for a Correct Observation.—The Temperature of the Human Body.

IT is now many years since I became interested in clinical thermometry. My first temperature charts, the result of thousands of observations, appeared in the eighth volume (1866) of the Army Medical Department Reports, and I believe they were the first systematic series of charts published by any medical officer in the public services. But in saying this I am open to correction. Be this as it may, I have, at all events, for some five-and-twenty years been taking temperatures with all sorts of thermometers, and in many different parts of the globe, including the East and the West Indies, the Mediterranean, North America, and at home.

My first remarks will now be on the so-called "one-minute" thermometer; and concerning this I had almost written two years ago, but decided not to do so, believing the instrument would soon cease to be advertised; but, the advertisements still appearing, I have changed my mind. The instrument is not only more advertised than ever, but we have now offered to the profession a "half-minute" thermometer, and its use is apparently sanctioned by high authority. In a recent issue of a contemporary, a Berlin correspondent, writing on the health of the German Emperor, says, "The temperature is always taken in the mouth with a 'half-minute' thermometer, which was given to Sir Morell Mackenzie by an eminent surgeon during his last visit to England..... All the physicians are now, however, unanimous in their approval of the 'short-time' thermometer, and it alone is used in the case." The advocates of this thermometer claim that it will register the temperature of the human body in one minute. "To any medical man who has an extensive practice, this is a great desideratum." "By this latest improvement the time required to mark the maximum temperature is reduced to *one minute*." "This thermometer is guaranteed to take the maximum temperature of patients in *one minute*." In such terms are its supposed advantages set forth.

Now, a thermometer can only register the temperature of the heat to which it is exposed. It cannot register the maximum temperature of any body until that maximum is reached, and the maximum temperature of the human body, or of the mouth, is not reached until it is covered up or closed for some time, and this time is more than a minute—some would say ten minutes. That the "one-minute" thermometer will register the existing temperature of a body in one minute is true; but the same is true of any other clinical thermometer—even a common bath or garden thermometer will do this. Take a tumbler of warm water, say at 100° F.; plunge any clinical thermometer into it, and you will find that the temperature of the water is registered in less than a minute, probably in less than half a minute. This necessarily happens on account of the very low specific heat of mercury and its high conducting power. The "one-minute" thermometer possesses in this respect for clinical purposes no advantage over any other thermometer, and to suggest that it does is to mislead, and to imagine that it can give the maximum temperature of patients as it is ordinarily obtained is delusive. It is not merely the temperature of a given part of the body that we desire to know—it is the maximum temperature of the part when removed from the cooling influences of the surrounding air, and it takes some time longer than a minute to get this. When a thermometer is first placed in the axilla, that part of the body has been usually more or less exposed to the external air; when the elbow is brought to the side to exclude as much as possible all external cooling influences, the temperature of the axilla begins to rise, and in five or more minutes it reaches a maximum. How can this maximum (the temperature required for the purposes of diagnosis and prognosis) be measured by any instrument until it is attained? Yet we are asked to believe that the "one-minute" thermometer will do this; that it will give the temperature of the patient, the temperature which is to guide the physician, in one minute; and the instrument is distinguished for this important practical purpose from all other thermometers. This is altogether wrong; but it is worse than wrong—it is, in its possible consequences, dangerous. As it cannot give the required temperature in one minute, a lower temperature is accepted, and this may be one, two, or more degrees below the proper temperature. A nurse, dresser, or patient using this "one-minute" thermometer gives the temperature recorded by it in one minute to the physician, and what may be the consequence? A temperature of 100°, say, is given in place of 102°, or perhaps, what is worse, a temperature under 99°, when the correct temperature is 101° or more. The inference may be that the patient is improving or convalescent, when in reality he may be getting worse, perhaps running into danger, and the anxiety and watchfulness which would result from a knowledge of the real state of things is replaced by a false security, created by the misleading record, and thus the welfare of the patient jeopardised.

When I first saw the advertisements of this "one-minute" thermometer in the *Pioneer* of India, the thought occurred to me, What new physical property has been discovered in mercury that will enable it to fulfil such a purpose? I accordingly sent to Bombay for one, and found, of course, as I had surmised, that it was simply an instrument somewhat more sensitive than the ordinary clinical thermometers, but in no other way possessing unusual qualities, except the disadvantages of much increased fragility and greater cost. This property of increased sensitiveness might be of some use in certain delicate philosophical experiments in which alternating waves of heat and cold had to be measured by seconds, but for clinical purposes it is of no use whatever. Far from being useful, it is likely to be a source of danger.

These thermometers are largely advertised, and, I believe, have an extensive sale, and I know that a power is attributed to them which they do not possess. On one occasion, a few years ago, I gave a lecture and demonstration on these instruments to the officers of the subordinate medical department in a large station hospital in Bengal, and I found that one of the assistant apothecaries doing duty in the hospital was actually in possession of one of them, having lost no time in procuring one on seeing them advertised. This officer had a large number of temperatures to take morning and evening, and he was greatly pleased, as well he might be, that there seemed to be a means of very much curtailing the time necessary for the work. On hearing what I had to say on the fallacy of observations so taken, he produced it, and I was afterwards informed that the agent took it back. I cannot believe there is any intention to mislead in connexion with the sale of these thermometers; the makers probably believe the instruments can save time, and are therefore superior to all other thermometers. I have been assured over the counter most ingenuously that "it gives the temperature in one minute, the others take three minutes."

All that I have said concerning the fallacy and danger attending observations made by these thermometers in the axilla applies *mutatis mutandis* to observations made in the mouth, and they apply with double force to the "half-minute" thermometers. If these thermometers are used as any other thermometers are used they of course answer the same purposes, but they are costly and easily broken, and in those that I have seen the index is set with unusual difficulty.

As to the best part of the body from which to take temperatures, I am decidedly in favour of the axilla. I think the only defence that can be urged for taking them in the mouth—and it is but a poor excuse—is that the practice is convenient, and that it saves trouble; and there is no doubt about this. A person, say, is before you; perhaps a woman in walking dress, or a soldier in his great coat. It is far easier to put a thermometer into the mouth than into the axilla with the usual precautions; and this is the only reason I can see for taking sublingual temperatures. The practice has, however, so many disadvantages that such considerations should have no weight. In the first place, is it not most desirable that there should be uniformity in the taking of tempera-

tures, in order that all should be directly comparable? Is it not desirable that all temperatures should be referred to one standard? It is worse than inconvenient that some observers should make a practice of taking axillary, and others mouth temperatures. They are not comparable without certain considerations; and, as I believe and hope that the majority of observers agree that the axillary temperature gives as true an index of the blood heat as is needed, it would be well if the practice was universal; but this is perhaps the least that is to be said in its favour. There are the following considerations. When you place a thermometer in a person's mouth, you shut his mouth in more senses than one. Whilst the temperature is being taken the patient must be silent, and it really is sometimes distressing to see the practitioner standing by watching the speechless subject, who is, moreover, often very uncomfortable, for many people cannot breathe at all easily with their mouths closed. All this is avoided by taking the temperatures in the axilla. Again, the instrument is more likely to be broken in the mouth than in the axilla. This is the case with children, in cases of delirium, of partial or complete insensibility, certain spasmodic affections, &c. Last, but by no means least, there is the offensiveness of the practice—be it even in the idea only. Is it not objectionable to retain in the mouth an instrument that has been in another person's mouth? Most people object to any but their own toothbrush, even to one belonging to a healthy member of their own family; how much stronger must be the objection to keep in the mouth for some minutes an instrument that in all probability has been recently in the mouths of half a dozen more or less diseased persons. Who would knowingly keep in their closed mouth a thermometer that had been in the mouth of a patient suffering from diphtheria, scarlatina, cancer or syphilis, various forms of ulceration and suppuration, or of dyspepsia with foul breath and loaded tongue, &c.? It is no justification to say the thermometer is always thoroughly cleansed first; for, as a matter of fact, this very necessary measure of precaution is sometimes neglected. It must be remembered, too, that a clinical thermometer cannot, like other instruments, be placed in hot water for the purpose of cleaning it; and it requires very hot water indeed to destroy the contagium of disease. Nor is it in every house that sufficiently powerful disinfectants are always at hand in which to place the thermometer before use. Even apart from the possible danger of disease transmission, the ideas suggested by the practice are, to say the least, disagreeable. No such objections apply to taking the temperature in the axilla. A perfectly clean thermometer is at all times desirable, but, should it not be quite clean, the axilla is a much safer place for it than the mouth.

The allegation that in the mouth a more correct temperature is obtained than in the axilla may or may not be true; it is not of sufficient force to be an argument against axillary temperatures. The temperature of the blood one cannot get; at best we can get only an index to that temperature, and the axillary index is as reliable as the sublingual. The cases in which we cannot take axillary temperatures compared with those in which we cannot or unquestionably ought not to take mouth temperatures are very few indeed. I would not allow any medical student, nurse, or dresser to take sublingual temperatures. I would teach them from the time they first took a clinical thermometer into their hands that the axilla is the proper place to take all temperatures. Uniformity of observations and safety would thus be secured. If some take temperatures in the mouth, some in the axilla, and some elsewhere—some for one minute, others for five, and others for ten,—it is hopeless to expect that we shall ever have standard charts of reference, to say nothing of the evil consequences of misinterpretations. It is a matter of surprise to me that so many practitioners still take mouth temperatures, and still more surprising is it to hear them depreciating the value of observations made in the axilla.

With regard to the precautions to be attended to in taking axillary temperatures, I will only refer to the one which concerns the time necessary to get an observation that may be relied on for medical purposes. From a very large number of observations that I have made and graphically traced I hold that five minutes are sufficient for every practical purpose, and that it is waste of time to occupy a longer period in an observation. It can be easily proved. Take an ordinary temperature chart, and let each vertical space represent an interval of fifteen seconds. Let an assistant place any clinical thermometer in the axilla of a patient with some feverish affection, and closely watching the rising mercury call out its height every fifteen seconds from the moment of commencing the experiment. Let this be continued for ten minutes. If a graphic representation of the numbers so obtained be now made on the chart, a paraboloid curve will be projected. Obtain several of these under various circumstances, and if an inspection of the whole will not convince an unprejudiced observer that, for all practical purposes of diagnosis and prognosis, a carefully made observation of five minutes is sufficient, nothing will persuade him.

Although the remarks which I have made above on the fallacy attending conclusions drawn from the "one-minute" thermometer are true, it is also true that reliable temperatures may be taken by the application of a thermometer to the axilla for only one minute. A knowledge of this fact will sometimes be of use in saving the time of those who have charge of many patients. It is, for instance, possible to take with one thermometer the temperature of a dozen patients in about twenty minutes, whilst ordinarily it would take over an hour. To do so, the patients should be told (under such circumstances as admit of this method of procedure, and with or without the aid of assistants) to bring their elbows to their sides, and place their arms in the usual position. Whilst the medical man is occupied five minutes in taking the temperature of the first patient, the armpits of the remaining patients are, so to speak, heating up and acquiring their maximum temperatures. It will be sufficient then to place the thermometer in the axilla of all but the first for little more than one minute, and thus one can pass from patient to patient, observing correctly the temperature of each in one minute, and it does not require a "short-time" thermometer to do this; any ordinary clinical thermometer will do it. It must be remembered, however, that the thicker the glass of the thermometer the slower it registers. Of course this quick method of taking temperatures must be done with all necessary precautions. They are obvious, and the person who neglects them would neglect a good many other things.

Finally, as to the axillary temperature of the human body in health, my experience goes to prove that it is always under 99° F. both in the tropics and in cooler regions. Numerous observations made by me in the plains of Bengal fully bear out the conclusions I arrived at fifteen years ago—conclusions which were then published. My observations have now been made in very different climates, under conditions of heat and moisture the most varied; in places where the true shade temperature was very often over 100°; in places where a temperature many degrees below zero was not uncommon; and in places where the hygrometric state of the air, as indicated by the difference between the dry and the wet bulb thermometers, varied from 0° to 30°. I believe, therefore, I am correct in maintaining that the temperature of man is not higher in the tropics than elsewhere, notwithstanding the belief of those who still accept the teaching of Dr. John Davy. For further information on this subject, I would refer to papers of mine in THE LANCET of Aug. 23rd, 1873, and April 23rd, 1878; also to an important paper in the eighteenth volume of the Army Medical Department Reports, published in 1878, by Surgeon-Major J. Crosse Johnston; and to communications from Surgeon-General Furnell, of the Madras Army, and others, in THE LANCET of the same year.

Woolwich.

THE APPLICATION OF THE THEORY OF EVOLUTION TO PATHOLOGY.

BY ALBERT GRESSWELL, M.B., B.A. OXON., &C.

THE rules and the reasonings of common sense admit of almost infinite expansion, and we find that the result of this extension of the universal law that every cause must have an effect, and inversely that every effect must have had a cause, could we but trace it, does, as a matter of fact, lead us to that belief in evolution which, having previously been recognised in every other department of human inquiry, has at length also been admitted to hold, even in the last strongholds of empiricism, the domains held by the monsters disease and death. For some time it has been held that the universe, together with all its multifarious contents, has gradually been developed from the simplest

forms of matter of a primeval past. The life-work of Charles Darwin, coupled with that of other writers and investigators, such as Herbert Spencer, added the link of vitality to the chain of thought, previously broken and incomplete. Now, one more link has been hinted at, it is for the observers of this age to rivet it; and we must not forget that the difficulties which will be experienced by those who try to do so will proceed rather from a superabundance than from any deficiency of the facts to be gathered together into one unique whole. It must be sufficiently obvious that, since changes or functions displayed by organisms which depart so far from those of health as to be called abnormal can only be classed as part and parcel of the sum total of processes manifested by them, they, too, can have no other than a similar relative explanation. Hence it follows that the idea of evolution in the field of pathology is in reality not only to be accepted in itself as unquestionably true, but is rather, as I hope to show, to be accounted as one of the supports of evolution at large as an indisputable fact. If it is true that all those numerous and involved processes which make up life in all its many varied forms and phases are to be considered in connexion not only with one another, but also with the phenomena from time to time occurring in the outside world; it is also no less true that the general statement applies with just the same force to the matters of fact presented by creatures suffering from disease as it does to the normal functions of healthy living beings.

Now, it is not too much to say that the explanation of certain diseases on the idea that they are caused by the presence and growth of minute vegetable germs in the blood and tissues is one of the most important of all the generalisations which have ever been made in regard to the causation of diseases, and consequently of both the prevention and the cure of them. It has been clearly demonstrated that many diseases are connected with, and apparently result from, the presence of organisms of microscopic size, in different parts of the body, the blood, the lymphatics, the tissues, and the organs. No doubt there are conditions of receptivity on the part of the man or animals liable to be attacked by these germs, and though at present we know very little indeed definitely on this subject, yet the information gathered in regard to these and allied points is gradually but surely growing; and already much has been learnt respecting the best methods of coping successfully with these living germs. Further, while many of the maladies known to depend upon the presence of living vegetal organisms in the fluids or tissues, or both are liable to afflict human beings, some are those of lower animals, while others are alike capable of attacking both human beings and animals indiscriminately. This leads us to the fact that the relation between the diseases of human beings on the one hand and those which afflict animals on the other is a close one, and one of the highest possible significance. This last remark is not so much true on account of what is already known, although that is of deep importance; but because the diseases—and especially of course the contagious and infectious diseases—of animals are now attracting a degree of attention on the part of bacteriologists and comparative pathologists which cannot but closely affect all our ideas as to the inner and obscure workings of disease. Of the numerous diseases which afflict mankind, some at least are certainly liable to be communicated from lower animals; and hence our knowledge, in order to be complete, must be supplemented by the information in regard to therapeutics and preventive measures which can be derived from the study of the first origin of these particular maladies. Three good instances of this general statement may be found in the case of three dread diseases which, as it seems, primarily attack lower animals, though they are also grave scourges to mankind. These three are tuberculosis, anthrax, and hydrophobia, and if we add scarlet fever we have a list of four. Now, tuberculosis is widely prevalent among oxen; and it is not improbable that the disease may be transmitted from infected oxen to human beings by the medium of the milk, and by that of the flesh. It is very clear therefore that vendors of milk should be prevented by severe repressive legislation from selling the milk of cows which are badly diseased. Indeed, it is quite as necessary that this precaution should be effectively carried out as it is that the prohibition of the disposal of flesh that is unfit for human food should be duly enforced. Of late years great improvements have been made in relation to such questions as those we are now considering, and this advance in hygienic science is highly conducive to the public health; but we must not forget that though much has been done, nevertheless there remains a great deal more to be achieved in the future by the various sanitary authorities. It is to be borne in mind that milk is, unless due care be taken, in several different ways liable to be a source of danger and of death. The germs of scarlet fever, those of diphtheria, those of typhoid fever, and probably those of yet other maladies, may through the agency of milk spread desolation far and wide. It is possible that these germs may be conveyed to the milk by contact of that fluid with the exhalations of patients, or they may be communicated to it by means of the addition of water into which some portion of infected excreta has been accidentally introduced as a consequence of faulty drainage or other hygienic defects or shortcomings. The chief part of the danger arises from the fact that milk is a fluid most admirably suited for the growth and multiplication of germs, so much so, in fact, that if only a few gain entrance into it they will readily multiply, and this is naturally one of the main reasons why milk is so liable to become a source and means of infection.

Moreover, as I have above pointed out, it may now be very seriously advanced that the method of contagion may be of a much more direct kind. In regard to tuberculosis, as implied above, it is at present difficult to be quite certain that human beings can receive the germs of that disease as a result of the consumption of either the flesh or of the milk of tuberculous oxen. With reference, however, to the communicability of scarlet fever by means of infected milk of cows to man, the recent evidence supplied by Drs. Klein, Power, and Cameron seems nothing less than conclusive, and we may almost feel quite certain that one, at least, of the most fruitful sources of the dissemination of scarlet fever throughout the civilised world is that most nutritious, but yet at times most dangerous, article of diet, milk. It has been shown that there is a disease from time to time affecting bovine animals, apparently so mild that it may merely be noticed as a slight eruption, but causing the milk to be of such a nature that it will spread scarlet fever far and wide amongst unsuspecting families. Hence we cannot be too careful in regard to the selection of the milk we use, and it is in all cases a very wise precaution to raise the temperature of that fluid to just below boiling point and to keep it at that temperature for some little time, since this treatment of milk is said to be sufficient to kill the streptococci of scarlet fever if they be present therein. The milk of one infected cow is sufficient to vitiate the whole of the milk of a dairy if it be mixed with that of others, for these vegetal germs will thrive and multiply rapidly, and a very few of them will soon lead to almost incredible swarms of streptococci.

Of other maladies of lower animals which are communicable to mankind I may mention hydrophobia, glanders, and anthrax. In reference to the last-named of these—viz., anthrax—more usually known in human beings under the name of woolsorters' disease, it may be said that the cause of the disease, whether manifested in human beings or in animals, is the same. Rod-like bodies of microscopic size, the anthrax bacilli, swarm in the blood of sufferers from this dreadful scourge. Now it seems to be established, almost beyond the possibility of doubt, that we must look to the outside world for the primary origin of many of the vegetal germs which produce the various maladies to which men are liable to be subjected. The different varieties of micro-organisms require definite conditions for their growth, development, and multiplication. In very many cases damp and wet are associated with putrefactive changes, which last indeed generally follow upon, or rather perhaps cause, the decay of lifeless organic material, both vegetal and animal. This putrefaction, this decay, is the result of the vital processes of certain micro-organisms. It is, moreover, by no means difficult to see how an animal, already suffering and debilitated in consequence of the more direct results of damp and cold, and partially famished owing to the lack of nutrient material, may readily become a prey to the attacks of these minute and rapidly multiplying organisms. Indeed, they may be introduced by means of the lungs or alimentary canal, or may gain access to the blood through an abraded surface. In the course of ages particular kinds of bacteria would gradually tend to become more dangerous than others in the case of some of the various groups of animals respectively.

In such a way as this we may suppose that the origin of certain diseases—for instance, that of anthrax—is to be explained.

The life history of septic micro-organisms outside the animal body is not well known as yet. That they are modifiable by alterations of temperature, and by differences in the medium to which they are subjected, are palpable clues which are being extensively worked out. There are, for instance, some bacteria which under the influence of certain conditions of this kind produce definite pigments. From the results of many experiments, Dr. Klein concludes that there are some definite micro-organisms which, as a rule, exist and grow in various substances, and also possess the power of growing and thriving in the bodies of certain suitable animals, in them producing a definite pathological condition. Just as there are species of plants which act as poisons to the animal body, and other species of plants which, although belonging to the same group and family and although very much alike to the others, have no such power, and cannot acquire such power by any means, so there are micro-organisms which are pathogenic, while others are harmless. The latter remain so, no matter under what conditions, and for how long a time they grow. Further, it is known that careful and thorough drainage, and the removal of all tendencies to wet and putrefaction, must gradually bring about a gradual diminution of diseases like anthrax. Other diseases also, such as ague and malarial fevers, are caused by the prevalence of germ-containing vapours, arising from ill-drained marshy lands, on which the vegetation is always liable to undergo putrefaction.

Having now briefly alluded to the germ theory of disease, and having attempted to indicate in what kind of manner we may suppose that some zymotic diseases may have originated, I now proceed to discuss other aspects of the subject. When dealing with the phenomena displayed by higher animals, we must remember that all animals, both high and low, may be considered as being composed of an almost infinite number of cells, or of structures which more or less closely resemble cells. These cells have been variously modified in all kinds of ways and degrees, in correspondence with, and, so to say, in order to meet the many different requirements of more complex conditions. With these words by way of prelude to the considerations which follow, I now propose to give an account, firstly, of some structural points bearing upon the question of evolution in disease, after which I shall discuss some functional aspects of that subject, and then conclude with a brief reconsideration of the more general points of view. Before continuing, however, I must here acknowledge the copious use of facts and statements contained in a paper written some time ago by Dr. D. Astley Gresswell, M.B., B.A., Christ Church, Oxford.

Glancing for a brief space at the lowest forms of life which are known to us, we observe that they multiply either by splitting into two or more independent parts, or by a very closely allied process—viz., the budding off portions, which gradually increase in size, both before and after they are set free. Regeneration seems to be the more active the younger the individual, and also the lower in the scale of life it may be. It is said that even the ova of higher animals may divide, and that each of the two parts may, in the due course of time, develop into a perfectly formed adult. With regard to the process of budding or gemmation above referred to, it may take place in any part of a lowly-developed organism; but as we advance gradually up the scale of life, we find that it is only certain parts which can take on themselves this function of reproduction. Nevertheless, indications of the primary condition are manifested by such facts as that an arthropod can throw off a leg at the joint above a lacerated segment, and then bud out a new limb from the centre of the stump. Similarly, also, the newt, it is said, can replace an eye. It seems, also, very possible that the granulations which tend to occur on cut surfaces, the papillomata and other growths which make their appearance on irritated patches of the skin or mucous membranes, the villi of the chorion and their abnormal developments, are in reality expressions of a power or property of cells similar to that of fission and gemmation as displayed by the lowest organisms. Moreover, growth and multiplication are enhanced by stimulating, or giving an extra supply of, food to lower living beings. Further, this same fact shows itself in the case of endothelium, when made to germinate by means of stimulation, and also, according to Kremansky, in that of the cells which are contained in the capsules of cartilage subjected to cauterisation. Again, Stricker holds that every living cell of any higher animal may divide; and similarly, Dr. Beale maintains that pus cells may develop from bioplasm of any part of the body if too freely supplied with pabulum. When such processes as these I am mentioning manifest themselves on a large scale in higher animals, we speak of them as inflammatory; but, as a matter of fact, they are comparable in their essential characters to those which may from time to time occur among individual lower organisms. Certain processes often called inflammatory, even though they occur in the avascular structures of higher animals, are in reality the result of greater nutritive activity, and are represented among living things by the rapid growth I have spoken of above. In support of this indubitable statement, it may be mentioned that the cells which result from inflammation are certainly fitted for but little more than the preservation of their own independent vitality, thereby affording a striking similarity to the two or more cells produced by the division of a lowly developed organism, each part of which is no sooner set free than it proceeds to go, so to say, adrift, about its own business, intent upon carrying out merely the objects and pursuits of its own independent life. In inflammation properly so called, as it shows itself in higher animals, the simple process here spoken of is complicated with other factors. The migratory cells are even still more active, and stoppage of the circulation and the consequent accumulation of leucocytes and ozone-bearing corpuscles are prominent features of the process.

(To be continued.)

A NOTE ON THE TREATMENT OF DYSENTERY.

BY SURGEON-MAJOR S. L. DOBIE.

THE local treatment of dysentery is seldom resorted to, unless as a last resource, except by those who see a good deal of the disease. The orthodox treatment is generally understood to be by large doses of ipecacuanha, in boluses, on an empty stomach, preceded by a dose of laudanum to allay, if possible, the ensuing sickness.

In India, of late years, treatment by tincture of aconite in small frequently-repeated doses has been recommended; and a combination of tincture of cannabis indica with tincture of hyoscyamus has been favourably reported upon. It is worth noticing that, in these two forms of treatment, ipecacuanha, which is generally looked upon as our sheet-anchor in this disease, is omitted. Some five years ago, a writer to THE LANCET advocated the use of nitrate of silver enemata in dysentery. The injections, as far as I can remember, were large ones, and were intended to reach well up the colon. If retained for any length of time an injection of solution of common salt, to render the nitrate of silver inert, was recommended. Another favourite form of treatment is the washing out of the lower bowel with plain warm water at the beginning of treatment, and it may be repeated. This generally gives great relief, and lessens the tenesmus, which is, after all, the most painful condition of the disease. The use of small opiate enemata, to be retained, with or without ipecacuanha, and administered after each motion, is a form of treatment which affords considerable relief. There can be no doubt that, when once the straining and irritability of the lower part of the rectum are checked or lessened, a great deal has been done towards the cure of the acute disease; and certainly three-fourths of the woes of the patient are at an end. The irritable rectum provoking so many calls to stool, and the violent straining which keeps the patient so miserably fixed there, allow the inflamed bowel no rest, and add fuel to the fire of their own irritability.

In treatment by the mouth, my own experience during the last sixteen years in India has been in favour of small doses of ipecacuanha with Dover's powder, repeated often enough to produce a feeling of nausea without actual vomiting. Latterly I have found the addition of cannabis indica to the ipecacuanha and opium apparently an

advantage. It is very likely that treatment by tincture of aconite in small frequently-repeated doses would lend itself advantageously to cases of acute dysentery in which there is a good deal of fever; but I have no experience of it. But for checking the irritability of the rectum and the tenesmus, I know of no remedy so wonderful in its effect as the enema of nitrate of silver to which I have alluded. It is a remedy which is known to, and used by, many no doubt. Some cases treated by it have been reported lately in the *Indian Medical Gazette*, but it is hardly as well known as it ought to be. When the stools are frequent, consisting of flakes of mucus stained with blood, and the patient is suffering torments from straining, then it is that the nitrate of silver enema gives an extraordinary amount of relief.

Unlike the original writer, to whom I am indebted for this form of treatment, I do not give the enema strong or in large quantity. I use six ounces of water with ten grains of nitrate of silver for each enema. Nor do I trouble myself whether the patient retains it or not; as a rule he does not, but if he does it is probable that all the nitrate of silver will be converted into an insoluble compound before it can be absorbed. This enema might be given two or three times in one day; but, as a rule, one enema allays the symptoms for the day, and does not require repeating unless they become urgent again in a day or so. It commonly happens that after one enema the symptoms are not only allayed, but subside altogether; the bowel has rest, the stools become feculent, and a warm bed and diet complete the cure. And while this treatment is so good in an acute attack, it is almost our last resource in those chronic cases so often seen among worn-out invalids sent from India, utterly broken down. In them the thinned mucous membrane, studded with ulcerated patches, is directly benefited by the local application of the nitrate of silver; and here we may use a larger quantity of the enema, and may try to inject it well into the colon. It is encouraging to find how amenable to this treatment is the long-continued, exhausting discharge, which no medicines and no diet seem to control.

In the chronic diarrhœa which sometimes attacks those long resident in the tropics, or which is a sequela of dysentery, in the uncontrollable diarrhœa which often accompanies exhausting diseases, and in the obstinate diarrhœa of infants, so fatal and so often met with in India, the nitrate of silver enema is extremely useful. I may add that my experience of this as a remedy for dysentery, acute and chronic, has been limited to the last five years or thereabouts, and it has been principally among insane natives, a class peculiarly liable to the disease, in the Madras asylum, among native soldiers at Suakin, and among well-to-do Europeans at a hill station in which dysentery is prevalent.

Ootacamund, India.

A CASE OF RUPTURE OF THE BLADDER.

BY W. H. BROWN, M.R.C.S.

ON May 4th, 1888, I was called at 2 A.M. to see a young man aged twenty, who while riding home from a concert about 10.30 P.M. the previous evening had met with an accident. Whilst cantering along his horse stumbled and fell; the man was thrown to the ground, and the horse fell upon his body. According to the account given by his companions he was able to rise after a few moments, but was in great pain, and said he "thought it was his bladder." He had not passed urine for some three hours at the least before the accident. He was quite unable to walk, so waited on the road while a buggy was procured to take him home, a distance of half a mile. Hot flannels were applied to the abdomen to relieve the great pain he was suffering, but as he obviously got worse, I was sent for.

On arriving about 3.30 A.M. I found the patient in bed with knees drawn up, distended and tympanitic abdomen; considerably collapsed, with small and frequent pulse; bathed in cold perspiration, and suffering great abdominal pain. He constantly implored me to draw off his urine for him, as he felt an urgent desire to micturate, but had been unable to pass anything since the accident. A No. 10 silver catheter passed easily into the bladder, but drew off nothing but a few drops of pure blood. I diagnosed rupture of the bladder, and proposed abdominal section as the only chance for the patient—though a poor one in this instance, owing to the very considerable collapse. As I had to send to Sale (eighteen miles) for assistance, I gave the patient one-third of a grain of morphia hypodermically, ordered a little brandy from time to time, with hot bottles &c., and returned home to prepare for the operation. On returning to the patient about 9 A.M. with Drs. Reid and M'Lean of Sale, I found him in much the same condition—a little stronger, but still showing considerable evidence of shock. A mixture of ether and chloroform was at once administered, and, after shaving the skin and cleansing it with a corrosive sublimate solution, I made a median incision of about 6 in. in length, reaching from a little below the umbilicus on to the pubes. An ounce or two of dark bloody fluid escaped from the lower part of the wound before the peritoneum was opened, and more after dividing that membrane. On examining the bladder (we had excellent light) through the wound, it was found to be almost empty, but no rent was apparent in the fundus or posterior part. On grasping the bladder in the palm of the hand introduced into the peritoneal cavity, and at the same time elevating an irrigating can containing warm boracic solution, and connected by a piece of tubing with a silver catheter in the bladder, the latter organ was felt to distend and fill, and no leakage could be detected at first. When, however, this process was repeated, but with no hand in the abdomen, fluid was presently observed to well up from the direction of the lower and anterior part of the bladder; and, after some trouble, by introducing two fingers deep behind the pubes, an irregular rent about two or three inches in extent was found, and the point of the catheter in the bladder was touched. The bladder contained a quantity of black clot, and the rent led from the bladder into a cavity filled with the same material. This clot was cleaned and washed out as far as possible, both from inside and outside the bladder. An attempt was then made with Hagedorn's needles and holder to sew up the rent, but owing to the inaccessibility of the latter it was unsuccessful. The rent could not by any means be brought into sight, though the abdominal walls were divided quite down to the pubic bone. It was therefore decided to put a tube in the bladder through the rent and abdominal wound, and to irrigate and close the abdomen. This was done, a gum catheter being also introduced into the bladder per urethram, and left *in situ*. The operation lasted a little over an hour, and once or twice during its progress the pulse was very bad. With hypodermic injections of ether and a little brandy by the mouth, the patient showed signs of rallying for a short time, but eventually sank, and died about 8.30 P.M., twenty-two hours after the accident, and about ten hours after the operation. No necropsy could be obtained.

Remarks.—In the last edition of Erichsen's Surgery, it is stated, "When the bladder is ruptured by a blow on the abdominal wall, the rent takes place always through that portion of the viscus which is covered by peritoneum." And this remark seems to have held good as regards all the cases recorded lately. It was so in both Sir William Mac Cormac's successful cases reported in 1886, in Mr. Teale's fatal case last year, and in Mr. T. Holmes' successful case of last year. Now, in my case, I have never been able to feel convinced that the rupture was at all intra-peritoneal; from its situation one can hardly understand how it could be. That in its greatest part, at any rate, it was extra-peritoneal is certain. In the course of the operation it was apparent that the reflection of the peritoneum from the anterior abdominal wall to the bladder was not abnormally low, as in a case recently reported in THE LANCET. The fact that the bladder seemed to fill and distend without much leakage while grasped by the hand in the peritoneal cavity must have been due to pressure of the rent against the pubic symphysis. Besides the unusual position of the rent, this case seems to have differed from all those mentioned above in the presence of considerable and lasting collapse dating from the time of the accident. This was, indeed, I believe, the proximate cause of death. Though no detailed examination was made, yet there was no reason to suspect injury of any other organ. The patient was conscious and intelligent throughout, and complained of no other trouble. In a future case I would certainly endeavour to make sure of the extra-peritoneal part of the bladder before opening the peritoneum.

Maffra, Victoria.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se compararo.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

CASE OF TYPHOID FOLLOWED BY MEASLES; PAROTITIS AND SLOUGHING OF THE FACE.

(Under the care of Dr. LIONEL BEALE.)

IN THE LANCET of June 30th (p. 1295) we published a case of typhoid fever and measles combined. In the following case, although measles did not occur until about convalescent from typhoid, still its following so closely after and its peculiar sequelæ render it rather unusual. For the following account we are indebted to Mr. Francis Ewens, late house physician.

Emma B——, aged twelve, came into the Thring ward at King's College Hospital, under Dr. Beale, on Oct. 4th, 1886, with a history of (for the last ten days) shivering, headache, pain in the back and abdomen, and bad diarrhœa. The temperature was 103°, and the next day typical typhoid spots appeared on the abdomen, fresh ones continuing to appear for the next ten days, and the temperature oscillating between 102° and 104°, with diarrhœa all the time and some slight delirium. The temperature began to fall from the 18th and the diarrhœa ceased, giving place to extreme constipation; about Nov. 1st the temperature was normal. On Nov. 28th, without any premonitory symptom, the temperature suddenly began to rise, reaching 102·4°, and the next day 103·6°, and then a dark-red raised rash, evidently that of measles, appeared first on the forehead and face, spreading by the next day to the trunk and limbs and accompanied by running and suffusion of the eyes, but with little sneezing. The constipation still continuing, the rash faded on the fourth day (Dec. 4th), and the temperature also fell to 100°; but the child, however, seemed unusually weak and ill, and the temperature did not go any lower, but three days afterwards began to rise, with morning and evening oscillation. On Nov. 9th, the urine being quite normal, as it had been all along, the eyelids looked a little puffy, and the angle of the left jaw was tender and swollen, and by the next day both parotid glands were enlarged, swollen, and tender, and the temperature had risen to 104°. The face then became very flushed, and on the next day (Dec. 12th), the temperature having fallen a degree (to 103°), a red rash appeared, covering all the body except the face; the papillæ of the skin were raised and bright red; the rash best marked on the legs, scarcely at all on palms and soles. By now the eyelids were very much swollen. The rash was still distinct on the 15th, fading gradually afterwards; the joints of the legs were shining and glazed. The action of the bowels now became light coloured and very offensive and loose. The child felt extremely ill, the lips were becoming covered with sordes, and the food was very badly taken. On the next day the cheeks and all the face began to swell, and on the following day a small slough appeared inside both cheeks; the parotids had in the meantime gone down a little, but not entirely. The lungs up till now had been quite clear, and the urine non-albuminous. The face now peeled in a few places, but was even more swollen. She remained in this condition three days, the temperature being about 100°, the pulse getting feebler and quicker, and the lungs becoming œdematous; then the temperature rose again to 104°, and remained there, oscillating daily to about 101° until death. The eyelids meanwhile were even more œdematous and the cheeks more sunken, the features becoming quite unrecognisable, and the mouth with the greatest difficulty opened. She was given large doses of stimulants, but could hardly be made to take them. By the 24th the cheek had sloughed through at the chin and a tooth dropped out, another following on the 26th, and a foul discharge came from the eyes and nose. Blisters then formed on the front of the legs, thighs, and hips, the eyelids ulcerated like the chin, the lips became blue and swollen; but she still lingered until Jan. 1st, at which time the lower angle of the mouth and cheek was one huge slough, apparently just about to give way. There had never been any dulness over the lungs, except at the extreme base, but there were râles all over the back, the breathing had become very hurried, the pulse very rapid and almost imperceptible, and the patient for some days had been quite delirious. No post-mortem was obtained. Large doses of stimulants had been given all through, and the new and ulcerated cavities were continually washed out with antiseptic solutions and covered with eucalyptic oil; but the treatment was most difficult, the patient objecting to almost everything. No diagnosis was made as to the nature of the last rash.

CITY OF LONDON INFIRMARY.

INTRA-CRANIAL SUPPURATION WITH NEGATIVE SYMPTOMS; NECROPSY; REMARKS.

(Under the care of Mr. W. GEM.)

S. B——, aged thirty-eight, corkcutter by trade, a well-developed man, with abundance of adipose tissue distributed over his body, was admitted into the infirmary on March 29th, 1888, suffering from right hemiplegia, with complete loss of motion and sensation *plus* aphasia of three weeks' duration. The only symptoms he complained of were indefinite pains in the head, at times radiating towards the back of the head opposite the torcular and down the neck; he had no discharge from the ear, no lagophthalmos or ptosis; he said his sight was perfect; there was no external tenderness or wound over the scalp, no feverish symptoms, and had had no particular illness; bowels were obstinately confined. History: Was a hard drinker, and after a symposium of a week's duration had a fit and fell, striking his head on the left side. He was treated on admission with compound decoction of aloes, compound spirit of ammonia, and camphor water, *plus* a blister to the neck, after which he felt much better, and continued to improve, and gained a fair amount of use over his arm and leg; his speech also showed great improvement—in fact, he appeared so much better that he was put upon solid food and the iodide of potassium. On April 29th, just a month after admission, the nurse noticed a slight discharge from the ear, which became purulent about fifteen hours before death, also a slight fulness in the neck below the ear about the same time. The only thing he complained of was feeling cold, upon which he was supplied with extra clothing, after which he stated he felt quite comfortable, dissolution taking place at 4 o'clock, on the morning of April 30th, in a very quiet manner, in fact, almost as if sleep had passed into death. It may be added that he felt comfortable, and ate and slept well all through during his stay in the infirmary.

Necropsy, twenty-four hours after death.—Body covered with adipose tissue in its entirety; no scalp wound or fracture of skull. On removing the calvaria there was no congestion of the meninges, but beneath the dura mater, opposite the first occipital convolution, there was a circumscribed abscess about the size and capacity of a hen's egg, filled with greenish-yellow pus, the cavity being lined with a well-marked membrane. There was another abscess, situated over the supra-marginal convolution, which had channelled the brain substance, passing into the Sylvian fissure, and thence to the under surface of the brain and temporo-sphenoidal lobe. There was superficial necrosis of the temporal ridge, and perforation of the dura mater opposite the internal auditory meatus, hence the pus in the ear; there was also perforation over the jugular foramen, hence the pus in the neck beneath the sterno-mastoid, causing the bulging in that region; otherwise the brain and skull were healthy. Section of the internal ear proved it to be perfectly normal, and no signs of otitis media existed. The lungs, heart, arteries, bladder, and intestines were normal, the liver was cirrhotic, spleen greatly enlarged and congested; the kidneys were also congested, with a large amount of adipose tissue around the pelves and calices. The fundus of the ear was, unfortunately, not examined, although probably not much benefit would have been derived from it in the way of diagnosis.

Remarks.—The query arises, What was the genesis of the abscesses? were they due to the breaking down of blood clots on account of the debilitated condition of the patient from the dire effects of an ill-spent life, or what was the cause of the necrosis of the temporal ridge? was it due to the shock

of falling and striking that side? I cannot look upon the disease of the bone as causing the abscesses, as it would have been impossible for it to get to the situation over the occipital lobe. As regards the pus travelling down the neck, I fancy the counter-irritation to the neck might have determined it to take that course. Touching trephining, I do not think there were any symptoms indicative of intracranial suppuration until a few hours before death; and in reference to the pain in the head, I do not think there was sufficient locality about it, even if pus had been diagnosed, although Mr. Hulke was led into an erroneous conclusion in his cases as regards the pain and the seat of the abscess. On the other hand, we have the authority of Mr. Horsley and Dr. Ferrier to explore when in doubt, but I honestly think, taking the above case on the whole, it was replete with obscurity and misleading in the extreme as regards the salient points of cerebral abscess.

HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.

A CASE OF OTITIS INTERNA AND CEREBELLAR ABSCESS, IN WHICH THE SKULL WAS TREPHINED AND THE ABSCESS OPENED; NECROPSY.

(Under the care of Dr. HUTTON and Mr. WRIGHT.)

FOR the following account we are indebted to Mr. J. Hilton Thompson.

Benjamin M——, aged eleven years. Six months before admission the patient had variola, followed by deafness on the left side and discharge from the right ear, which continued for more than five months, when the left ear commenced to discharge. On admission there was a purulent fetid discharge from both ears, destruction of both membrana tympani, and fungoid granulations at the bottom of the external auditory meatuses. From symptoms developed after admission it was decided that an abscess was situated either in the left temporo-sphenoidal lobe or in the left cerebellar hemisphere, and an operation was advised. The following is a short account of the operation, performed on July 13th: A circle of bone was removed with a trephine one inch and a half in diameter, the centre of the opening being about an inch behind a point two inches above the left external auditory meatus. The dura mater was divided by a crucial incision, and the exposed brain explored in various directions with a director, but without result. Another opening was made with a gouge half an inch above the left superior curved line one inch and a half from the middle line, and an inch above the occipital protuberance. A trocar and cannula were passed through the opening downwards, piercing the occipital lobe and tentorium cerebelli into the cerebellum. On withdrawing the trocar about one drachm of thin fetid pus escaped through the cannula; the latter was left in to serve as a drain, the guard of the cannula having been passed through to a slit in the flap. No paralysis resulted from the operation. Seven hours afterwards Cheyne-Stokes' respiration was noticed, and the patient died eight hours after the operation. The temperature just before death was 106·6°.

At the post-mortem examination, the petrous portion of the left temporal bone was found extensively diseased, and perforated pus appeared to track backwards between thickened and adherent dura mater beneath the left temporo-sphenoidal lobe towards the cerebellum; in the left hemisphere of the latter, was found a large abscess, occupying its posterior inferior and inner part. Some hæmorrhage was also found at the base of the brain.

The importance of such cases as the above, from the influence they may have upon brain surgery, demands their being made public as soon as possible. The above abstract is intended as a preliminary notice; a more detailed account will be published at a later period.

CONSTANT WATER-SUPPLY FOR THE CITY OF LONDON.—The Gas and Water Committee presented their report on a constant water-supply to the City, at a meeting of the Court of Common Council held last week. The inquiry was initiated in consequence of several petitions to the Court on the question. The report enters fully and exhaustively into the subject, and expresses, in conclusion, the opinion, on the facts and information they have obtained, that it is not expedient in the interests of the petitioners and the citizens generally, to take any steps in the direction indicated.

Medical Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Specimens.—Removal of Uterine Appendage and Parovarian Tumour.—Peri-uterine Hæmatocele.—Vesicular Mole.

A MEETING of the Obstetrical Section was held on May 25th.

Dr. W. J. SMYLY exhibited a Hairpin which he had removed from the Bladder of a woman who came to the City of Dublin Hospital.

Dr. MACAN exhibited—1. A Fibrous Tumour and Uterus which he removed on May 2nd from a woman aged forty-eight in the Rotundo Hospital. When she first came in her uterus was of enormous size, and she complained of excessive hæmorrhage. He determined to remove the tumour. He easily got the stump. The stump, however, unfortunately sank into the peritoneum and gave rise to acute sepsis, which caused her death on the 12th of the month. 2. The remains of an Ovarian Tumour. It proved to be so absolutely rotten that he had to enlarge the incision in order to get command of it, and then to scoop it out in handfuls. It was afterwards obvious that there had been adhesions of the tumour to the intestines. On one occasion her temperature rose to 106°. He found her suffering from bronchitis. He inserted a drainage tube, through which a large quantity of perfectly harmless-looking and inodorous serum came away. The woman had been going on very well since. 3. A specimen of an ordinary Ovarian Cyst. The only thing that made this specimen remarkable was that the case had been for a long time treated as one of ascites.

Dr. JOHN BYRNE exhibited a large Fibroma which he had removed from the uterus per vaginam. It was of an interstitial character, grew on the posterior wall of the uterus, and hung down into the vagina. The woman was thirty years of age. She had one child; her next parturition was an abortion, which was attended with fearful hæmorrhage. He put in a large pessary and sent her back to the country. While in the country she had another abortion, which was also attended with great hæmorrhage. When she returned to the hospital it was found that there was a tumour of such a size that no pessary would hold up her uterus. The tumour occupied the whole of the sacral space. She was chloroformed, and an incision was made close to the upper part of the vaginal wall, and after a good deal of tugging the tumour was got out. The woman lost a great deal of blood, not so much by active hæmorrhage as by a kind of oozing. A couple of silver wires were put in, and she was placed in bed, but never rallied, and died in forty-eight hours. His reasons for performing the operation were, first, the great size of the tumour; secondly, the great amount of hæmorrhage from which she suffered; and, thirdly, the repeated miscarriages which she had sustained.

Dr. PUREFOY communicated a case of successful Removal of the Right Uterine Appendage and Parovarian Tumour in a case of dysmenorrhœa and dyspareunia. He should add that the tumour had been for years of the same size. The ovaries presented the appearance of a slight amount of cystic disease.

Dr. JOHN BYRNE communicated a case of peri-uterine hæmatocele, which was treated by tapping and eventuated in recovery. The case was illustrated by a very accurate drawing, made by Professor Birmingham.

Dr. BYRNE also showed specimens of Malignant Disease of the Uterus from a case which proved fatal. The woman, who was aged about fifty, came to the hospital in a very blanched condition in consequence of hæmorrhage. A small malignant growth was found springing from the uterus. There was a great deal of hæmorrhage from the growth, which was repressed. A large tumour was also found, which was evidently fluid, occupying the suprapubic, left iliac, and lumbar regions. This was quite movable. Malignant disease of the uterus was diagnosed, complicated with a cyst, which was probably malignant. The woman was healthy in every other way. He resolved to remove both the uterus and cyst by abdominal section; but forty-eight hours before her death she had a rigor, accompanied with great pain; her abdomen became very tympanitic; and she complained of great difficulty of breathing, and sank. On post-mortem opening of the

abdomen, which was very fat, a great quantity of serum rushed out. The cyst, which broke down in the hands, was found to be intimately connected with the viscera, and an enormous quantity of a substance resembling pea-soup came from it. The cyst was lined by a membrane, the whole of which was covered with globules bearing all the appearance of malignant disease. The uterus had a very peculiar one-horned appearance. The Fallopian tube was very large and distended. The specimen showed malformation of both the uterus and the tube.

Dr. MORE MADDEN read a paper on Myxoma of the Chorionic Villi, or Vesicular Mole, as a practical contribution to the study of the still obscure pathology of embryonic death in the uterus. Having first described some cases of myxoma of the placental chorionic villi recently met with in his hospital practice, the writer proceeded to point out the general importance of placental disease as a most frequent cause of intra-uterine death and abortion. Amongst the diseases affecting the mother as well as the child are inflammations of the placenta, especially chronic or subacute placentitis, leading to morbid adhesions between the after-birth and uterus, and occasionally giving rise to the two most serious complications of parturition—viz., post-partum hæmorrhage and inversion of the uterus. Another placental disease of no less importance to the mother than to the child is congestion, sometimes resulting in hæmorrhage or placental apoplexy; whilst amongst the placental diseases which chiefly affect the fœtus by impairing or destroying the structural integrity of this organ are œdema, atrophy, and hypertrophy of the after-birth, and the various forms of degeneration—fatty and calcareous; and, above all, that which was met with in this case—viz., myxoma or cystic degeneration of the placenta, or chorionic villi. In his own practice he had now met with six cases of this disease, the infrequency of which appears from the following table:—

Authority.	Cases admitted into the Rotundo.	Cases of hydatidinous disease reported.
Dr. Collins	16,654	—
Drs. Hardy and M'Clintock ..	6,634	1
Drs. Sinclair and Johnston ..	13,748	4

Thus it appears that in 37,036 cases admitted into the Lying-in Hospital there were only five instances of hydatidiform mole recorded, being in the proportion of 1 in 6207 cases. Vesicular disease of the placenta consists in myxomatous degeneration and abnormal development of the placental chorionic villi, either following or producing the death of the fœtus. In the Dublin Obstetrical Transactions Dr. More Madden had already related some cases of this kind. In most of these the hydatidiform mass was expelled from the uterus in the fifth month of pregnancy. The symptoms of this disease can at first hardly be distinguished from those of ordinary pregnancy. If, however, in addition to the signs that usually denote the death of the fœtus the patient experiences occasional gushes of water, together with slight hæmorrhage from the uterus, lasting for a short time and recurring at irregular intervals, we may suspect the existence of vesicular disease in the placenta of a blighted fœtus. The expulsion of these growths from the uterus is generally attended with severe hæmorrhage. With regard to their origin, Dr. More Madden still adhered to the views he published several years ago, that in the vast majority of cases those growths originate in cystic degeneration of the chorion villi of a blighted ovum; but at the same time he also believed, although his opinion has been controverted by others, that vesicular growths, apparently similar to those resulting from chorionic disease, may in some exceptional cases also possibly be found in utero under circumstances that preclude their origin in embryonic disease. And in such cases Dr. More Madden holds that they probably originate in the ovary of an unimpregnated female from abnormal nutrition and perverted or monstrous development of a Graafian vesicle, the ovum, when expelled into the uterus, there becoming adherent, and abnormally proliferating, until by its bulk expulsive action is occasioned. In the way of treatment Dr. More Madden knew of nothing that could be done to arrest the progress of the disease, but an attempt should always be made to prevent its recurrence by improving the general health of the patient by alteratives and ferruginous tonics.

ANDOVER COTTAGE HOSPITAL.—A meeting of the friends of this charity was held last week to devise means to relieve the committee from pecuniary difficulties.

Reviews and Notices of Books.

A Manual of General Pathology. By JOSEPH FRANK PAYNE, M.D. Oxon., F.R.C.P. London: Smith, Elder, and Co. 1888.

THE present-day student of medicine is to be envied in having presented to him so many text-books of a high class, which had no counterparts ten or fifteen years ago. The choice must be somewhat embarrassing, but at any rate he cannot complain of lack of opportunities for acquiring knowledge. Above all is this true of pathology—a subject which is full of attractiveness, but which not so long ago was treated almost solely from one standpoint (the anatomical) in even the best of manuals. The interest taken in this subject is, however, greatly enhanced when its scope is widened to embrace the processes as well as the products, the causes as well as the effects, of morbid action. To comprehend all that is proved concerning the principles of pathology is essential to a clear understanding of disease, and therefore any work that deals in a sufficient manner with these important groundworks of medical science is sure to receive a hearty welcome from teachers as well as students. Dr. Payne has amply earned such a reception for his valuable and most useful work, which in several important particulars has for the first time brought within the view of the English reading student the established facts and the most reasonable theories regarding what may be termed "physiological" as contrasted with "anatomical" pathology. It has often been matter of surprise to us that this, perhaps the most important, side of the subject should have been apparently so much neglected in this country. Our pathological societies are in the main concerned with the record of anatomical facts; they do not favour, or at any rate they do not encourage, the prosecution of that kind of research of which Cohnheim was the foremost exponent. Nor even is bacteriology fostered in them, as we might expect that it should be; but this is less to be wondered at, since its pursuit demands so much special attention as to make it a subject of study within the reach of a comparatively small number.

The order in which Dr. Payne has dealt with his subject is systematic, and permits of a very ample survey being taken of it. The work is divided about equally into two parts—viz. (1) The Processes of Disease, and (2) The Causes of Disease. Under the first head are discussed such matters as atrophy, hypertrophy, inflammation, fever, thrombosis, embolism, new growths, &c.; under the latter, the effects of poisons, the specific diseases, and parasites. The author has included many topics which are not usually treated in text-books, or very cursorily dealt with only. Indeed, his work will be found laden with information, and, what is more to the purpose, it is fully up to date. Thus, for instance, in the chapters on New Growths, the subject of the origin of cancer is handled quite in the light of modern inquiry, whilst the chapters devoted to parasites are not only excellent from their lucidity and exactitude, but show a grasp of the vast subject of bacteriology which cannot but be admired. The specific diseases are grouped in six classes, and their leading characteristics sketched, often with the interesting addition of historical and geographical details, which gives a completeness to their treatment. These classes are thus arranged:—1. Acute specific fevers: Scarlatina, measles, rötheln, small-pox, vaccinia, varicella, typhus, typhoid, relapsing fever, plague, Asiatic cholera. 2. Specific inflammations: Whooping-cough, mumps, diphtheria, erysipelas, dysentery, tetanus, hydrophobia. 3. Contagious suppurations: Impetigo contagiosa, contagious ophthalmia, soft chancre, gonorrhœa, pyæmia, septicæmia. 4. Granulation tumours and allied diseases:

Tubercle, lupus, syphilis, rhinoscleroma, leprosy, glanders and farcy, anthrax. 5. Miasmatic diseases: Ague, yellow fever. 6. Mycosis. This may be taken as an example of the thoroughness with which the subject is handled. Of the descriptive matter and argument, we must be content to say that it is lucid, sound, and exact; so that the book is one which we fully believe will be very widely read and appreciated.

An Index of Symptoms as an Aid to Diagnosis. By R. W. LEFTWICH, M.D. Pp. 205. London: Smith, Elder, and Co. 1888.

THE author of this little book is to be congratulated upon the happy thought which prompted its compilation. It is really intended as a handbook to those in doubt at the end of a meandering account of symptoms for which the clue is not readily discernible. The whole *raison d'être* of the book is to be found in the frequency with which some common symptom may result from a variety of causes, and the author hopes, by presenting these causes in alphabetical order, to suggest ground for further inquiries until a satisfactory diagnosis can be reached. The arrangement of material is necessarily somewhat arbitrary. Dr. Leftwich has divided his book into sections, dealing respectively with the results obtainable from interrogation, observation, palpation, percussion, auscultation, &c.; he has attempted to indicate relative frequency of occurrence by abbreviations which are readily grasped, and he has added a very useful little chapter on Methods of Diagnosis for the use of clinical clerks, which furnishes many valuable hints. So far as we have tested this little book, it appears to be remarkably free from errors, and to be likely to be very serviceable in its suggestiveness. It is curious that the term "relaxation" is employed in preference to "diarrhœa," both in the body of the book and in the index. Altogether the author has succeeded in producing a little book of undoubted novelty and utility.

OUR LIBRARY TABLE.

On Curvatures and Disease of the Spine. By BERNARD E. BRODHURST, F.R.C.S., Surgeon to the Royal Orthopædic Hospital, and to the Royal Hospital for Incurables, &c. Fourth Edition. London: J. and A. Churchill. 1888.—There is nothing specially noteworthy in this edition of Mr. Brodhurst's book. The discussion of the pathology of lateral curvature of the spine leaves much to be desired, and few readers will be persuaded by the arguments here adduced that the great cause of this deformity is obliquity of the pelvis from some inequality in the lower limbs. The directions for the treatment of the disease are too vague, and Mr. Brodhurst might with advantage have added to the many woodcuts one depicting a spinal support which exactly meets his views. Still more vague is the description of the treatment of congenital dislocation of the hip. We are told that "the treatment of lordosis which is induced by congenital dislocation of the femur is simply the treatment of the dislocation itself. As dislocation is removed, so also is the curve which is produced by it." Then follows a very brief reference to a case on which Mr. Brodhurst "operated"; but the nature of the operation is not even hinted at. Of the result we read: "This child has now every possible and normal leg movement, and the excessive lumbar curve is removed, so that the spinal curves are now normal." These statements are so greatly at variance with general surgical experience that they ought to be well substantiated, and ought, we think, to have been much amplified.

On Gonorrhœal Infection in Women. By WILLIAM JAPP SINCLAIR, M.A., M.D. London: H. K. Lewis.—This little monograph is to a large extent a reprint of papers originally published in the *Medical Chronicle*. Dr. Sinclair is a great believer in Noeggerath's views as to the very serious consequences of gonorrhœa, uterine complications, hydro- and pyo-salpinx, ovarian inflammation, sterility, and even puerperal fever, being largely credited to its account. Full information is given on the subject of the examination of vaginal secretion, and much interesting, and to many practitioners probably novel, information is given on the various types of the disease. Especially important is the chapter on the "chronic or creeping form." Treatment and prophylaxis are also dealt with. It is, perhaps, well to be reminded that this affection, whether in the male or in the female, is capable of leading to very serious consequences, both to the patient and to others, and Dr. Sinclair is to be congratulated on having brought this truth so prominently forward.

Cocaine Dosage and Cocaine Addiction; Cocaine Toxæmia. By J. B. MATTISON, M.D. Brooklyn.—In these two papers the author has collected numerous records of the influence of cocaine in comparatively large doses. He vigorously combats the notion that cocaine is free from risk, and he endeavours to prove that, in America at least, there is a tendency to the formation of a "cocaine habit." For the treatment of those habitually addicted to opium or alcohol, he considers cocaine to be the "most fascinating and seductive, dangerous and destructive drug extant." This little pamphlet is well worth perusal and consideration.

Ireland: its Health Resorts and Watering Places. By D. EDGAR FLYNN, F.R.C.S. Pp. 175. London: Kegan Paul, Trench, and Co. 1888.—The object of this work is to bring "to the notice of that large section of the public, who are continually migrating to the Continent and elsewhere in search of that priceless boon the restoration of health, the advantage derivable from a sojourn at those health resorts which lie within easy access of their own homesteads." It gives an account of the principal watering places and spas in Ireland, but is evidently more intended for the general public than for the profession. Many of these health resorts appear to require further development in the means of access and in suitable accommodation; but others—such as Glengarriff, Killarney, Queenstown, and Rostrevor—are well provided, and offer, in the way of scenery, great inducements to holiday makers. We observe a curious mistake in the notice of the mineral spring at Mallow, the only warm spring in Ireland; the temperature of the spring at Buxton, with which it is compared, is stated to be 182° instead of 82°. The book would be greatly improved as a guide-book by the addition of an index.

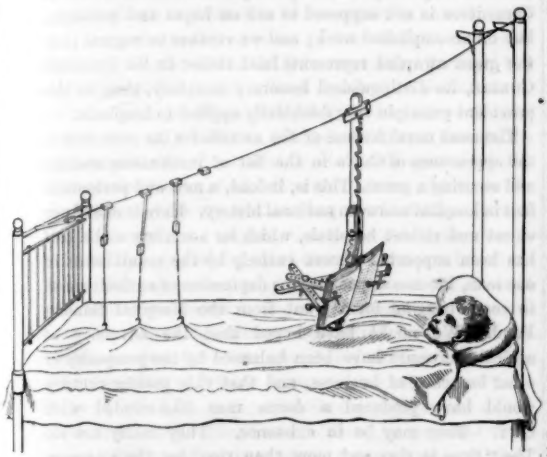
Leslie's Tourist's Guide to the Scottish Highlands. With Sectional Maps, Illustrations, &c. Pp. 96. Perth: D. Leslie. 1888.—This is a very portable guide-book to some of the finest scenery in Scotland. The routes seem judiciously chosen, the descriptions short, clear, and (with the exception of the half page of introduction) free from stilted language. We do not know any handbook which gives so much useful information to intending visitors to Scotland in so small a space. Our only objection to it is the small type (ruby) used, but it is very clear. The great marvel, however, is the price, which is only 1*d.* It is the cheapest book we know, considered with reference to the amount and quality of the information it contains, but an index to the principal places mentioned in it would add greatly to its value.

SLOUGHING OF THE CORNEA FROM COLD.—A case of partial sloughing of the cornea is reported by Dr. Kuritzin, due to exposure for nine hours on a Russian steppe driving against a snowstorm. Both eyes were similarly affected, somewhat deep ulcers having formed in shape and position corresponding to the openings between the eyelids; the other parts of the eyes were scarcely affected at all. The patient, who had never previously suffered from any affection of the eyes, made a good recovery.

New Inventions.

PATENT BOOKHOLDER.

THIS is a very ingenious contrivance, invented and patented by Mr. Delabere May of Bath, for holding a book at any angle in an overhanging position so as to enable a person in the recumbent position to read comfortably without the labour of holding up the book. It can be easily fitted to any bed or couch, and has the great merit of being very moderate in price. Coupled with it is a method of keeping the bedclothes suspended over a limb or any part of the body, giving all the advantages now derived from the use of a



cradle, without the inconvenience which attends it. This is effected by means of hooks fitted with flat heads, like drawing-pins, passed through the blankets and fastened by a string to the cord of the bookholder, as shown in the drawing. A piece of elastic with a weight attached to steady the bookholder would probably be a useful addition to the apparatus, and a card of detailed instructions as to the manner of putting together the various pieces of which it is composed appears to be required. It is very portable, as it can be taken to pieces and packed in a small box of card board and weighs under a pound.

THE "BEAUMONT TEAPOT."

ANY suggestion that tends to enhance the wholesomeness of tea-drinking cannot be unworthy of notice, so that no apology is needed for calling attention to a device submitted to us by Messrs R. and W. Wilson & Sons, of London, and which consists in an addition to the teapot of the ordinary pattern of a movable receptacle for the tea affixed at the entrance of the spout. The advantages attending this modification are—(1) that the receptacle in question may be removed when the proper time for the steeping of the tea has expired, and thus the infusion may be kept hot without the possibility of its acquiring the deleterious properties of the leaves; (2) that the beverage is kept perfectly free from grounds, so that the adjunct of a strainer, which it is impossible to keep thoroughly clean, and which is very apt to get clogged, is rendered unnecessary. It will thus be seen that the invention offers an important improvement in the process of tea-making.

MAJOR AMPUTATIONS PERFORMED ANTISEPTICALLY.

To the Editors of THE LANCET.

SIRS,—I beg to thank Mr. Frederick Page for his rejoinder and the answer he has given to the queries in my first letter. In Mr. Page's communication of the 14th ult. we were told that during the year 1887 in the Royal Infirmary, Newcastle-on-Tyne, sixty patients had been submitted to sixty-two major amputations of the limbs and two only had died. I admit that such a low death-rate is an achievement, and that Mr. Page and his colleagues are to be congratulated upon the excellence of their work; but the result, looked at with the knowledge, the qualifying knowledge, of the age of the patients, which last week Mr. Page detailed as follows: thirty-one patients were under twenty years (no death), fourteen were between twenty and forty years (one death), ten were between forty and sixty years (no death), and five were over sixty years (one death)—after all, shows how true is the well-known surgical axiom—viz., that the younger the patient the more likely is recovery to follow, and the older the patient the less likely. One word regarding the use of the expression "antiseptic." Mr. Bryant, a year or two since, in a lecture delivered in London, dwelt in a very *à propos* manner upon the necessity of every writer who employed the term "antiseptic" individualising what he meant. The antiseptic treatment of wounds is now universally practised, but the method, as well as the details of the method, vary so much, that it has long become essential, if any instruction is to be obtained from the recorded results of the practice of any given surgeon, that an explanation should be afforded of the so-called antiseptic method adopted by that surgeon. I confess that at one time I considered that I perfectly understood what was meant by the phrase Listerian treatment of wounds, but at the present moment I believe I am correct in saying that Listerism is a "dark horse"; what it is and what it achieves are known only to those whose location is within the four walls of King's College Hospital. Mr. Page's amputations were all performed under the spray cloud. I have never used the spray for an amputation; my dependence for a good result has always rested upon the most perfect cleanliness of the patient, operator, assistants, instruments, sponges, and room, both during the operation and afterwards.

The following abbreviated narration of my last case but one of thigh amputation will place on record my method and its result. On June 9th last I amputated at the lower third the right thigh of a well-grown boy aged ten years. Every bleeding point was most carefully tied by very fine silk thread, which for months had been soaking in a 1 in 20 carbolic acid solution. The interior and the exterior of the stump having been well douched with a solution of perchloride of mercury, 1 in 3000, the edges were coupled by catgut suture inserted at half-inch intervals, except the centre (the lowest point of the face of the stump) where a short indiarubber drainage tube was inserted. The line of suture was covered by a piece of green protective, over this and the stump some wet, followed by some dry, gauze were laid, both being fixed in position by a bandage of the same material; then the whole of the stump, thigh, and pelvis was enveloped in a thick layer of mercurial wool, maintained firmly in its place by gauze bandages; a wooden splint without padding having been applied behind the stump and thigh, a flannel bandage was evenly wrapped over it and the whole of the dressings, and the patient removed to his bed. As no pain was complained of and the temperature remained normal the dressings were not removed until June 17th (eighth day) when it was seen that the wound had entirely healed, except where the drainage tube protruded; this was removed as well as some of the sutures, and similar dressings were reapplied. The day previously the lad had been removed from his bed on to a couch, and this change was continued daily until, on the fifteenth day from the operation, the stump upon inspection was found to be firmly healed "all along the line." The patient was permitted to move about on crutches, and soon after returned to his home. The cost of the dressings used in this case was estimated by my house surgeon, Mr. Gough, to be about five shillings, not a serious trespass upon the funds of the hospital for the complete healing of a thigh amputation wound.

I am, Sirs, yours faithfully,

Wolverhampton, July 31st, 1888. T. VINCENT JACKSON.

THE LANCET.

LONDON: SATURDAY, AUGUST 4, 1888.

THE meeting of the Council of the Hospital Sunday Fund on Tuesday to discuss the Report of the Distribution Committee and authorise the awards was of a very satisfactory nature. The sum collected this year is larger than that of any previous year. The gifts and legacy of the late Dr. WAKLEY, who, with Sir SYDNEY WATERLOW, inaugurated the movement, gave a larger appearance to the collection in the last three years. But even without this, and in the absence hitherto of any similar benefaction, it is estimated that when the contributions are received the collection will exceed that of all previous years by nearly £1000. The amount up to Tuesday last available for distribution and the usual current expenses was £39,321 17*s.* 6*d.*, against £39,125 last year. It is one of the great merits of this fund that the expenses of management are so small. Out of the sum we have mentioned £37,721 were assigned to 107 hospitals and fifty dispensaries. It is gratifying to notice that the number of institutions to which awards are made this year is the same as last. It is devoutly to be hoped that we shall have no more new hospitals in the metropolis for some time to come. The present hospitals are not filled, and they are not supported as they should be. When men become charitable again, or revert to that state in which criticism does not check charity, but only keeps it in right ways, the impecuniosity of hospitals will be swept away in a few generous months, and the empty beds will be filled with those who are now languishing from disease in straitened homes. But there is no excuse at present for new ventures, and those who are benevolently disposed will do well to bestow their munificence on old hospitals.

The confidence displayed by the Council in the rules of the fund for regulating the action of the Committee of Distribution, and in the discretion of the members in the use of these rules, is almost absolute. The general fairness of the results is well attested by the slight protest or complete acquiescence of the institutions affected. Even those which get less than they expect or wish seldom venture to challenge the award. This may be partly due to the somewhat complicated data by which the Distribution Committee are guided, and partly to the ability of Sir SYDNEY WATERLOW in handling them. But after all is said, the general justice of the result, as we have said, is admitted. In fact, the general acquiescence in the conclusions of the Committee of Distribution makes the meeting of the Council somewhat tame and formal. Dr. GLOVER raised questions on two or three of the awards. That to University College Hospital, he pointed out, was £156 less than last year; and that to the Establishment for Gentlewomen, Harley-street, was nearly £50 less than in 1887. Sir SYDNEY WATERLOW admitted the excellence of both institutions, but maintained that the cost of management in University College and the weekly cost per patient in Harley-street was excessive, and ought to be reduced. In another case, that of the Metropolitan Hospital, Kingsland, formerly called "Free," but now affecting so-called provident principles, Dr. GLOVER showed that the cost of management was no less than 45 per cent.—the largest of any institution on the list—while the number of in-patients for last year was *nil*. The annual average of patients' payments during the last three years was only £52—a sum exceeded by the payments of any second-rate dispensary. Sir SYDNEY WATERLOW and Sir EDMUND CURRIE explained that the hospital was in process of transition. Nevertheless, the Distribution Committee have awarded £200 to this hospital. Sir EDMUND CURRIE promises that it will soon justify the hopes of those who believe in the provident principle. But the Distribution Committee is not supposed to act on hopes and promises, but on accomplished work; and we venture to suggest that the grant awarded represents faith rather in Sir EDMUND CURRIE, its distinguished honorary secretary, than in the provident principle very doubtfully applied to hospitals.

The most novel feature of the awards for the year 1888 is the appearance of Guy's in the list of institutions seeking and securing a grant. This is, indeed, a new and portentous fact in hospital and even national history. Here is one of our oldest and richest hospitals, which for a century and a half has been supported almost entirely by the munificence of one man, become so poor by the depression of agriculture as to come begging for a grant from the Hospital Sunday Fund. We might have hoped that the adversity of agriculture would have been balanced by the prosperity of other branches of business, and that this prolific century would have produced a dozen men like-minded with GUY. They may be in existence. They really are so. The "time is ripe and more than ripe" for their appearance. The whole standard of hospital charity is low for want of such examples—so low that Guy's has to appear as a competitor in begging with 150 other institutions which eke out an impecunious existence and minister to the sick poor of this vast metropolis. We do not blame the authorities of Guy's or the Distribution Committee. There are some innovations in the administration of Guy's to which we have adverted, and to which we may have to return, threatening to make it the home of the middle classes rather than the hospital for the poor. But we regret its poverty, and we approve—for the present, at least—of the action of the Distribution Committee in assigning this historic hospital £520. The grant will do something to satisfy Mr. NELSON HARDY and others who think that the south side of London has not had its fair proportion of the Hospital Sunday collection. The Hospital Sunday Council were emphatic in their thanks to various speakers, as well they might be—notably to the Archbishop of CANTERBURY and to Sir ANDREW CLARK—and to various organs of the press, including ourselves. We admit the soft impeachment that we have spared neither expense nor labour this year in trying to advance the cause of hospitals, which for every social, Christian, and medical reason, and in spite of certain admitted abuses calling urgently for remedy, we regard as in the very forefront of charities.

THE practice which has for some time past been adopted in a number of northern districts, and especially in Yorkshire, of building dwelling-houses in blocks of two parallel

rows which touch back-to-back, and which have hence no open space to the rear, nor indeed at the side except in the case of those situated at the end of the rows, is one which has long been condemned on general sanitary grounds. But it has been contended that this system of building had certain advantages; that it enabled a working man's family to occupy a separate house, instead of sharing with others a tenemented house; that it was economical as regards the cost of materials; that in view of the increasing cost of land it had in certain districts become all but a necessity; and that, after all, the idea of its unhealthiness was mere surmise, and was based on no definite facts. On the other hand, it was obvious to many that a system of building which had not been found to be a necessity in nine-tenths of the kingdom, including some of our largest and most populous centres, could hardly be imperative in one or two separate counties; and a large number of the most experienced medical officers of health in the country condemned the practice as tending to injure health; and this on the very important ground that it absolutely prevented the through-ventilation of all houses so erected. But up to the present date there was wanting any authoritative information on the subject; and although the model bye-laws as to new buildings issued by the Local Government Board required that every new domestic building should be provided with a minimum amount of open space both to the front and to the rear, and thus indirectly prohibited any back-to-back houses, yet there have been a number of sanitary authorities, acting, we fear, to a large extent in the interests of local builders, who have maintained that a requirement to the effect that all dwelling-houses should be provided with means of through-ventilation was not applicable to their districts. The Local Government Board have now taken the matter up, and a very elaborate and valuable report, prepared by Dr. FREDERICK W. BARRY and Mr. P. GORDON SMITH, F.R.I.B.A., has been issued on the subject. We cannot profess, within the limits of this article, to review the whole of the report, or even to refer to all the considerations dealt with in it; and therefore we select for present discussion two of the principal points which are referred to by the reporters in their comparison of the respective merits of through houses and back-to-back houses—viz., 1st, that of economy, and 2nd, that of healthiness.

In point of economy there appears, at first sight, much to be said in favour of the back-to-back house. They have only one external wall, the absence of open space to the rear limits the amount of area occupied, and embedded as the building is between three other houses, it does not need thick walls in order to support it or to secure the maintenance of a comparatively warm temperature within. As regards the actual structure, there does therefore seem to be something in favour of this view; but estimates having been secured for the construction of each sort of house, it has been ascertained that in the case of an ordinary workman's house somewhat over £150 in value, the price of materials and of land being the same in each case, "the difference in cost.....between a through house and a back-to-back house, affording the same accommodation and built equally well, amounts in the case illustrated to £5 in favour of the back-to-back house, a difference which may be approximately represented at one penny per week less rent." This paltry saving can obviously not be justified providing anything really objectionable or injurious can be shown to attach to the back-to-back house, which does not apply to the through house. As to that which is objectionable, apart from demonstrable proof of injury to health, we would point out that even where a given area contains the same number of houses of one or the other sort, there is a tendency in the case of the back-to-back system to a greater huddling together of the houses themselves. And even when wide spaces are provided between the ends of the adjacent rows these have to be largely occupied by an agglomeration of privies and middens, a system which is objectionable in the extreme. The lack of privacy prevents women and children from resorting to the privies; excreta are stored up in the houses all night; and in many cases they are also kept in-doors during the daytime until a certain amount of darkness affords a cover under which the receptacles can be emptied. Morally and socially, the provision of separate privies in small yards exclusively belonging to the several houses concerned is a demand that needs to be met; and this the back-to-back house cannot secure.

But perhaps the most interesting part of the report is that which deals with the influence of different classes of houses upon the health of the inhabitants. And here it may be noted that accurate information was not often forthcoming. It is not that there were no materials by which it could have been procured, but the local data had but rarely been properly made use of, and the inspectors were in consequence almost entirely confined to the extremely valuable and carefully compiled statistics which had been prepared in Salford by Dr. TATHAM. Attention was drawn to these some time since by Dr. RANSOME, who, in a paper on "Tubercular Infective Areas," read before the Epidemiological Society in May, 1887, referred to Salford as exhibiting proof that "in certain streets and courts consisting of back-to-back houses, unfurnished with through-ventilation, tubercular disease was much more common than in other parts of the same town, and that such disease occurred again and again in the same houses." The data on which this conclusion was founded have been exhaustively sifted for the purposes of this report, and they have been utilised for a similar investigation of the influence of the want of through-ventilation on other diseases besides those of the tubercular type. Fortunately the materials afforded by the Census returns of 1881 enabled a subdivision of Salford to be made, which gave groups containing different proportions of back-to-back to other dwellings; and the result of an examination of these areas for a series of years as to mortality from phthisis, other pulmonary diseases, and from general infectious diseases, has been to show that there was a progressive increase in the mortality from all causes, and from each of the specified causes of deaths in direct proportion to the number of back-to-back houses included within the group of districts. Diarrhœa, whether in Salford or Bradford, exhibited the same result in a striking manner; and although the localities affording the materials on which the conclusions have been founded are less numerous than could have been wished yet they are so definite that it is impossible to avoid concurrence with the statement that, other things being equal, death-rates increase "in direct ratio with an increased per-

centage of houses unfurnished with means for through-ventilation." And this holds good even where streets are wide, and considerable open spaces are provided; a result which is of the more importance because it shows that ventilation *about* dwellings cannot take the place of proper ventilation *of* dwellings.

We have only touched the fringe of this report, which abounds in lithographic plans showing the different methods of house construction, and with tables indicating in detail the data on which the conclusions are based. It should be carefully read by all to whom the future health interests of this country have been consigned by the Legislature, and we regret to note that it does not bear the indication, which has appeared on many similar reports of late, that it can be purchased by the general public. It is a document that should be widely circulated, and we hope that if any difficulty should occur in obtaining it, members of Parliament will be urged to demand that a general issue of it should be forthwith prepared.

THE inquiry recently held into the cause of death of the late Mr. MANDEVILLE, sometime a prisoner in Tullamore Gaol, terminated in the finding of the jury that the deceased died of diffuse cellular inflammation of the throat, and that this was due to the treatment he received during his term of incarceration. It may be noted that the imprisonment, which occupied two months, terminated on Dec. 24th, 1887, and that the death occurred a month or so ago. On behalf of the prison authorities it was contended that from whatever ailment Mr. MANDEVILLE suffered the discipline to which he was subjected during his confinement stood in no causal relation to his unfortunate and untimely decease. It may be conceded that, save in one particular—owing to the suicide of Mr. RIDLEY, Mr. MANDEVILLE'S prison surgeon—the court was put in possession of all the facts calculated to aid it in the discharge of its function. Affirming and rebutting evidence was taken, and this was embellished by the interpolations and addresses of counsel learned in the law. The political element with which the inquiry was so strongly tinctured is quite beyond the scope and intent of the present review. There remains, however, matter enough and to spare for the contemplation of the ethical, forensic, and surgical mind. There was direct conflict of testimony as to Mr. MANDEVILLE'S condition on his release from durance vile, and on the part played by the alleged results of his residence in Tullamore prison upon the development of his fatal illness; nevertheless, certain facts remain uncontroverted in connexion with this part of a singularly painful history. The intended and originally prescribed course of Mr. MANDEVILLE'S subjection to prison discipline was broken by an incident — justifiable or not — of his own creation—viz., his refusal to wear the regulation garb of a criminal. According to the evidence, he remained for more than twenty-four hours clad only in such ill-fitting garments as a quilt and sheet. With or without other associated causes it is not surprising to find that he suffered from the effects of partial exposure, in the form of sub-acute diarrhœa and soreness of throat. For the insubordination to prison rules just referred to he was consigned to solitary confinement, with bread-and-water diet. It does not appear, however, that any immediate serious consequences ensued upon this particular course of punishment, nor does his health seem to have utterly broken down, since some ten days later he regained his freedom, which he used in the voluntary participation in the conduct of public meetings. At the same time we would not go so far as to say that his vitality had in no way deteriorated during the interval that elapsed between his entrance into, and his exit from, Tullamore Gaol. A prison is not intended to be a health resort; neither, on the other hand, has the State any right to inflict such punishment as shall lead to grave or permanent physical disability. From a careful and impartial examination of the evidence tendered at the inquest, we cannot escape the conclusion that Mr. MANDEVILLE was not subjected to unusually rigorous discipline; for, without impugning the veracity or good faith of the witnesses on either side, we feel bound to place greater reliance on what we may term the precise continuous narrative of the prison and departmental officials than upon the necessarily more casual and less complete observations of occasional visitors. Again, Mr. MANDEVILLE'S own version of his prison life could scarcely be expected to consist of unqualified praise. What light the late Mr. RIDLEY could have thrown upon this episode in the case we can only conjecture, but that conjecture—unless Mr. RIDLEY belied his trust, of which there is an entire absence of proof — lends weight to the opinion we have already stated. Nevertheless, if, as alleged, Mr. RIDLEY refused to certify Mr. MANDEVILLE'S fitness for special punishment, and still more if he actually stated his unfitness for the same, and yet the plank bed and bread-and-water diet were insisted on and enforced, the officials have certainly a case to answer. We would fain hope, as at present we believe, that the charge in question is without foundation in fact. Again, we find from the record that only a few days before his release Mr. MANDEVILLE refused to allow the doctor to examine him, so that the latter cannot be blamed for not knowing what he was not permitted to ascertain.

We now come to consider a far more serious question from a medical and medico-ethical point of view—the nature and treatment, and the opinions thereon expressed, of Mr. MANDEVILLE'S last illness. All are agreed that he succumbed to the effects of diffuse cellulitis about the pharynx and neck—Angina Ludovici, as it is sometimes termed; and here we cannot help stating most emphatically that we are much of the same opinion as Dr. MOORHEAD, both as regards the etiology and appropriate treatment of the affection. Allowing for one moment that Mr. MANDEVILLE left Tullamore Gaol deprived of some of his habitual vigour and strength, we find no facts to support the theory that he had sustained lasting injury to his constitution, or, in other words, that he had acquired an abiding predisposing cause to such an acute disease as diffuse cellulitis; and this being our matured and unbiased opinion, we fail to recognise a warrant for that part of the verdict of the coroner's jury which attributed the death primarily to the deprivation and suffering Mr. MANDEVILLE is alleged to have borne during his term of confinement.

Acute diffuse cellulitis of the neck has always a serious prognosis, for even when treated on the most approved lines, and by the most skilful hands, it commonly has a fatal termination. It is a malady upon which professional

opinion differs as to its exact cause, incidence, and mode of development, and hence we should be disposed to allow a wide latitude of opinion as to the best possible means of combating it. The balance of opinion seems to be in favour of the theory which supposes it to arise from the implantation of a virus upon the pharyngeal or tonsillar mucous membrane—we see it in some cases following in the wake of scarlatinal sore throat,—and that, the local contagion once established, there ensues a widely and rapidly diffused lymphangitis, with general infection of the system. It may be taken as the type of acute phlegmonous inflammation as regards its pathological anatomy, signs, and symptoms; and the generally recognised mode of treatment is identical with that for other acute infective inflammation—viz., to maintain the strength, to get rid of the poison and its products, and to ward off any special tendency to death. The second of these desiderata is best attained by relieving tension and giving free vent to the local exudation by means of free external incisions. Incisions, to be effectual, cannot be made from within the mouth, on account of the danger of immediate and consecutive haemorrhage. Except in the very early stages, but little good can be expected from leeching: the mischief is too deep and serious for that.

There is one other matter which calls for comment in these pages. We refer to the licence allowed to medical men in the witness-box to criticise the professional acts of their fellows. A medical, like every other witness, is legally bound to speak "the truth, the whole truth, and nothing but the truth" when upon his oath, but our interpretation of this formula distinguishes between mere personal *opinions* and *facts* within the knowledge of the deponent. If this is the correct reading generally, how forcibly must it tell when the particular subject matter of investigation has relation to questions bearing on the inexact sciences, of which medicine is one of the most problematical. We should require much weighty argument to convince us that one medical witness was justified in speaking of others as professionally incapable.

IN spite of the scepticism which every now and again is brought to bear upon the value of numerous drugs, there are some facts concerning many of them which are universally conceded, some broad principles of action which are admitted as being beyond dispute, some common ground upon which all are agreed. Among the terms employed in medicine few would be allowed to pass unchallenged more readily than the term "physiological action." It is commonly employed in describing the influence of any new remedial agent, indeed it forms the basis of the so-called rational system of therapeutics, as opposed to the empirical. Whenever any new substance is introduced to the notice of the profession, its theoretical employment is almost necessarily based upon definite observations of the influence it exerts upon some healthy organism. This influence, whatever it may be, is ordinarily described as the "physiological action." It has probably been determined by numerous experiments, and when the term is thus employed the influence described is ordinarily restricted within certain very sharply defined limits. It has nothing whatever to do with disease; the introduction of any notion of disease at once breaks up the whole meaning of physiological action. Disease is to be combated by a therapeutic agent, which may perhaps possess special medicinal properties only when in presence of a morbid state, and thus the charm of simplicity is dispelled; the perfect circle of universality, the halo surrounding the notion of physiological action, is destroyed. Essentially, physiological action is concerned solely with the vital processes occurring as the result of the employment of a drug in a condition of health. Some authors, dissatisfied with the term, have endeavoured to replace it by "pharmacological action," used occasionally as being synonymous with the other, sometimes as indicating a combined action and reaction depending upon the introduction of a new force. Some boldly cut the Gordian knot by eliminating all adjectives and speaking merely of action and uses. The synopsis of the examination of the Conjoint Board has introduced yet another term ("medicinal action"), for the use of which it affords no explanation. It might appear that this distinctly implied a relationship to disease, but the present regulations negative this, since the examination in materia medica may be taken so early in the curriculum that it might well be doubted whether the student could even be expected to exhibit an intelligent knowledge of pharmacology. A first-year's man has hardly had opportunity to grasp physiological details; he certainly knows nothing of disease. In practice it has been found that the deans of the medical schools so well appreciate the difficulty of this ambiguity that they urge students to postpone their examination in materia medica until they have passed the second examination in anatomy and physiology. In other words, part of the first examination is commonly deferred until the second examination has been successfully dealt with. The supposition that a student can pass this examination at an early date after registration is a mere administrative fallacy. The vague term "medicinal action," so far as can be gathered from the experience of candidates, is by the examiners of the Conjoint Board understood to be practically synonymous with pharmacological or physiological action. The term of the synopsis is retained in the examination papers, and in the *viva voce*, but candidates are constantly reminded that their answers are expected to apply solely to the changes produced in a healthy organism; indeed, vague references to names of diseases are rejected as irrelevant at this early stage of their studies. The term "physiological action" is sufficiently precise. To urge that a change in physiological processes induced by the action of any agent introduced into the system can hardly be described as a physiological action is surely to argue for the sake of argument. The term is not perfect, but so long as it expresses the notion of the changes induced in the healthy organism it would appear worth retaining. Mr. MEYMOTT TIDY has recently endeavoured to cast fresh doubt upon it. To judge from his words he regards it almost in the light of a cloak for ignorance. "There is a danger," he says, "lest the phrase 'physiological action' should be employed or regarded as explanatory." This remark is made incidentally in the course of a lecture upon "Poisons and Poisoning." It is quite casually that he suddenly asks, "How does strychnine act?" and startles us with his answer, "We know sadly little about it; so little that we use the phrase 'physiological action' to express our want of knowledge." In a sense this may be true, but the term is

sufficiently useful, and is perhaps the best that can be suggested. It merely implies the results of the presence of a drug, and states these results in definite intelligible order. How these results are brought about, what chemical or physical changes lead up to them, are for the present unanswerable questions, which should not prevent the employment of a simple expressive term in lieu of one which is at once vague and misleading. It would appear to be an over-refinement to confuse a junior student with "medicinal action" considered apart from disease. "Pharmacological action" is still liable to be considered pedantic. "Physiological action," in spite of Mr. MEYMOTT TIDY'S warning, is the least open to objection. This term bears a suitable relation to the knowledge a student may be presumed to possess at the time of examination, and the accurate study of the action of drugs in the healthy body should form a fitting link to an appreciation of their influence in connexion with disease.

Annotations.

"Ne quid nimis."

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

THE Registrar-General has just issued his quarterly return relating to the three months ending with June last. The birth-rate and the death-rate were both lower than those recorded in the second quarter of any year since the commencement of civil registration in 1837. It should be noted, however, that in calculating these rates the Registrar-General assumes that the population of England and Wales has increased since the last census in 1881 at the same rate that prevailed between the census enumerations of 1871 and 1881. It is possible, therefore, that the population of the country at the present time may be over-estimated, the result of which would be to understate the calculated rates of births and of deaths; it is, however, very improbable that the error of estimate, as regards the whole of England and Wales, is large enough to appreciably affect the accuracy of the calculated birth-rate and death-rate. There is no sufficient reason to doubt that the death-rate during last quarter was the lowest on record for the second quarter of the year, thus implying an exceptionally satisfactory condition of the public health. An analysis of the information bearing upon the mortality of the quarter furnished by the Registrar-General's return corroborates the favourable evidence afforded by the gross death-rate. It may be stated that the reduction in the death-rate was relatively much larger in the urban than in the rural districts. Compared with the rates in the ten preceding corresponding quarters, the decline in the urban rate was 1·8, and in the rural rate only 0·6 per 1000 of the estimated population. With regard to the mortality at different ages, it appears that the death-rates in the quarter of infants under one year, and of children and adults aged between one and sixty years, were respectively 4 and 14 per cent. below the mean rates in the second quarters of the ten preceding years; while the death-rate of persons aged upwards of sixty years exceeded that average by only 1 per cent. The main saving of life occurred among children and young adults, whose lives are most valuable to the community; and we further find that a very considerable proportion of the saving of life at these ages was due to the reduction in the mortality from the principal zymotic diseases. The deaths from these diseases gave an annual rate of 1·32 per 1000, while in the ten preceding second quarters of the year the mean rate from these causes was 2·12 per 1000. This implies that nearly 6000 fewer deaths from these diseases were registered during the quarter than would have been the case had their mortality been equal to the average. The death-rate from diphtheria, it is true, was above the average, but those from measles, scarlet fever, "fever," diarrhœa, and small-pox were almost unprecedentedly low, and the rate from whooping-cough was considerably below the average. The zymotic rate in the twenty-eight towns was 1·71 per 1000, and 0·39 above the general rate in England and Wales, and ranged from 0·43 and 0·58 in Portsmouth and Sunderland, to 2·65 in Manchester and 3·14 in Salford. Measles showed the greatest mortality in Plymouth and Bradford; scarlet fever in Cardiff and Blackburn; diphtheria in Oldham and Norwich; whooping-cough in Manchester and Salford; and "fever" in Preston, Nottingham, and Leicester. Of the 310 fatal cases of small-pox registered in England and Wales, 152 occurred in the twenty-eight large towns, of which 84 were returned in Sheffield, 27 in Preston, and 10 in Bristol. The return just issued affords ground for believing that the mortality statistics for 1888 will be still more favourable than those of 1887, when the death-rate was lower than in any previous year of which trustworthy records exist.

ARMY MEDICAL SCHOOL.

A SUBJECT of great importance, affecting the Indian Medical Service, was brought before the House last week in the form of a question, by Dr. Tanner, as to the accuracy of a report that it was the intention of the Indian Government to discontinue the system of sending the successful candidates for the Medical Service to undergo a course of special instruction in military medicine, surgery, and hygiene at Netley. Sir John Gorst stated, in reply, that no decision had been arrived at on the subject. "The matter is still under the consideration of the Secretary of State and the Government of India. The reason given in favour of the change is that the special instruction can be given better and at less expense in India. If the present course were abolished, a course of special instruction would be given in India." We should deeply regret such a decision as that foreshadowed in the answer, as we believe it would be most injurious to the interests alike of the Medical Service and of the troops. The establishment of the Medical School at Netley was one of the boons acquired for the army—Indian as well as European—by Sydney Herbert. The need for it and the importance of the instruction to be given in it were most clearly brought out in the evidence given before the Royal Commission over which he presided in 1857, and the beneficial results derived from it have fully justified the recommendation made in that report, and the expense incurred on account of it. We would most earnestly recommend the authorities to study well the evidence in that report before coming to any conclusion unfavourable to the school. It is stated that the special instruction now provided at Netley could be given better and more cheaply in India. We greatly doubt the statement. We do not believe the young men could, on their arrival in India, go through such a course as that now given at Netley without suffering in health, or that, even irrespective of health, it could be better given there than at Netley. To organise a similar establishment in India would involve a large outlay in buildings, apparatus, &c., and a staff which in pay and allowances would swallow up any apparent saving of money. If the saving is to be effected by dwarfing the school and reducing the amount or character of the special instruction given, it will only be an additional instance of that false economy which lessens money expenditure at the cost of life, health, and efficiency. We hold it to be the imperative duty of the

Government to send out the medical officers fully qualified to undertake their duties without having to undergo any further educational training under circumstances which cannot be favourable either to their health or their comfort. To deprive the young medical officers of the special instruction now given, or to minimise its quality, would be a grievous act of injustice to the Indian army for the sake of a paltry pecuniary saving. ——

AN ANOMALOUS EPIDEMIC.

DR. JAS. B. RUSSELL, medical officer of health for Glasgow, has published a pamphlet upon a "Peculiar Outbreak of Febrile Disease," which occurred in March of the present year in St. Mary's Roman Catholic Industrial School for Boys. His investigation, which was most thorough, shows that the schools in question are situated in a densely populated district, much enclosed by buildings, and in contiguity to a greatly overcrowded graveyard; that the schools are provided with very limited playgrounds, and are, besides, deficient in internal air space. He finds that the inmates are "children between five and fifteen years of age, the waifs of a large city, weak in constitution, tainted with a proclivity to scrofulous diseases, and generally of low vitality." The death-rate is higher than in other similar schools in Glasgow, and than that of children of the same age living in the lowest districts; the proportion of deaths from pulmonary diseases being "enormous," whilst there have been repeated outbreaks of typhus fever! Of the two schools, that for boys is in a worse state as regards sanitation than that for girls, and the mortality amongst the former is much higher than with the latter. The outbreak in March was "in its nature a febrile disease, tending to implication of the lungs, and especially to pneumonia"; it resembled epidemics recorded in similar institutions which also were of indeterminate nature, but by all observers "associated with insanitary conditions of the nature of aerial contamination." No specific organism was found, but the disease is sometimes rapidly fatal, the local disease being obviously the result of a constitutional infection. It is interesting to note that the post-mortem appearances resembled those of enteric fever in lesions of mesenteric and intestinal glands; and Dr. Russell's suggestion that the cases, although not enteric fever, might well be due to contamination of the air with organic effluvia, and that they would therefore be allied to so-called "pythogenic pneumonia" seems to us to be worthy of acceptance. Dr. Gemmell, who contributes a note on the clinical aspect of the disease, points to its being obviously allied to the acute specific fevers, but he alludes to certain differences in the clinical history of the pneumonic cases from that of "epidemic pneumonia." Whatever, then, the precise nature of the outbreak, it is more than proved to be due to the insanitary conditions under which these children passed their lives. Dr. Russell justly points out that the only radical measure which would prevent the recurrence of such diseases is the removal of the institution to the suburbs, a step which has been constantly urged by the Government inspector, but which has not been adopted for pecuniary reasons. Failing this, Dr. Russell suggests eight steps which are imperatively needed, including the reduction of the number of inmates, the provision of a large hospital ward, of a detached mortuary, of a probationary ward and a play-room, measures as to cleansing and clothing of the children, and "another step, which it is within the power of the local authority to take, and which ought to be taken at once, is absolutely to close St. Mary's Cemetery, and to make arrangements for putting the ground in decent order. It is now," he adds, "as in 1875, 'in a state of rank disorder,' and is used occasionally as an exercise ground for the children."

THE HARVEIAN CELEBRATION.

THE Royal College of Physicians is an august as well as an ancient body. Perhaps it was from a sense of these attributes that it was solemnly resolved at the last comitia to "invite" the Fellows to attend the Harveian Oration on St. Luke's Day in full academicals. Some fear was expressed lest, if a more imperative mandate were issued, the interest in this historical ceremony would considerably wane. We may presume that the same invitation will extend to the Members and Licentiates; or is it intended to create a distinction between those who have received the silk of the Fellowship and the mere Member or Licentiate who happens also to be a university graduate? Really, the College should go further, and institute a badge or order, whereby the higher distinction may be recognised by all. And whilst the comitia was about the task of reverting to ancient customs, why not have insisted upon the delivery of the oration in Latin? The other proposal—to revive the practice of dining together in the evening of St. Luke's Day—involved the remarkable admission that for well nigh half a century the College has been committing a breach of trust! Harvey's bequest of his Burwash estate was for the purpose of meeting the expense of the lecture, and of a feast upon the occasion of its delivery. It is high time that the College should atone for its negligence in this respect, and it might be suggested that only those Fellows who observe the ceremonial in the afternoon should be permitted to share in the festivities of the evening; even if the latter be, as the resolution says, "at their own expense."

PAINLESS KILLING.

THE famous Dr. Benjamin Franklin, writing to his friends Messrs. Dubourg and D'Alibard, in May, 1773, concerning the mode of rendering meat tender by electricity, says "that it has been often asserted that animals killed by lightning putrefy immediately." "This," he continues, "cannot invariably be the case, since a quantity of lightning sufficient to kill may not be sufficient to tear and divide the fibres and particles of flesh and reduce them to that tender state which is the prelude to putrefaction. Hence it is that some animals killed in this manner will keep longer than others." From the point here stated Franklin goes on to refer to the application of electricity for the painless killing of animals for food, remarking "that, as this kind of death is more sudden, and consequently less severe, than any other, if this should operate as a motive with compassionate persons to employ it for animals sacrificed for their use, they may conduct the process thus." The description which follows directs that six large Leyden jars, of twenty to twenty-four pints each, should be charged in cascade; that the operator should attach a chain from the interior of the battery to the legs of an animal—a fowl, for example—and, after raising the animal a little way from the ground, should then deliver the charge through the head from the prime conductor. The animal dies instantly. The head may be immediately cut off to make the body bleed, and a fowl may be plucked and dressed at once. In another letter, addressed to Mr. Collinson, Franklin gave an account of his killing a turkey by the electric shock, in which experiment he very nearly killed himself, a point of practice which since his time has always stood in the way of extended efforts to employ electric shocks for the purpose of destroying the lives of the lower animals, or, as it has also been proposed, of criminals doomed to undergo the extreme penalty of the law. The practical details of electrical science are so much improved since last century that we may now assume a degree of safety in the administering of electricity fairly sufficient to be a safeguard to the

operators. But how the plan would act in practice is quite another question. A writer to one of the evening papers, who records his experiences of killing animals by the electric shock, can hardly, we think, be aware of the difficulties that were found to surround the process when it was practically brought to demonstration by Dr. Richardson before the committee of the Royal Society for the Prevention of Cruelty to Animals in the year 1869. In those trials sheep were struck down by the shock, but a charge of ninety-six feet of surface was required in order to be sure of the effect; with every precaution, the workmen were more than once exposed to danger; the expense was found to be too great when many animals had to be slaughtered; and after all was done the process was not so certain as to be satisfactory. If the shock administered was strong enough to kill outright, the animal usually would not bleed afterwards; and if the shock were only sufficient to stun, there were often marked signs of recovery from the unconsciousness when the animal was losing blood from the knife of the slaughterer. For these reasons the plan was given up, and we believe will be again if it should be tried. Indeed, what difference is there between a blow skilfully administered by a pole-axe and an electric shock? We lately saw a bullock felled by a blow through Baxter's mask. The animal was blind to the blow, and was prostrate and unconscious within three seconds. What could exceed this in celerity? On the question, revived in a lay contemporary by Dr. Farquharson, M.P., on the expediency of making the penalty of death in the human subject by euthanasia, we hold by what we have said before, that any such scheme would only lead to the removal of whatever there may be deterrent in the penalty; and would put, actually, a premium on crime. Dr. Farquharson suggests that Dr. Richardson should be called upon to construct a lethal chamber for condemned criminals. We fancy that if the inventor of the lethal chamber for the lower animals were ever asked to assist in the other task, he would refuse point blank, holding, as he does, we believe, the view that it is the duty of science to endeavour to abolish the extreme penalty, not to tinker it up as if it were good, if it were only divested of the barbarities which have lately brought it, once more, into public execration.

THE TURKISH BATH.

MOST of those who indulge from time to time in the luxury of a Turkish bath have need to observe a discreet moderation in its use if they would reap its advantages without incurring its occasional risks. For the majority of persons it is, with this proviso, a wholesome and enjoyable aid to cleanliness. The rheumatic, the gouty, and the dyspeptic have often proved its therapeutic value, and the reason for this is not far to seek. Its superior efficiency as a cleanser of the skin surface, and its powerful diaphoretic action, need only be mentioned in order to commend its use in such cases. The action set up is not, indeed, a purely local one. Not only is the skin excretion vigorously stimulated, but the bloodvessels, the absorbents, and the deeper tissues generally, are washed by the current of outgoing fluid thus set in motion, while at the same time the strain on the frequently overburdened kidneys is lightened, and this organ rendered proportionally freer and fitter for the discharge of its duties. We must not allow ourselves, however, to view the matter in its most favourable aspect alone. Serious mishaps do occasionally occur in the Turkish bath, and of this fact the recent sudden death of a man in one of the northern counties affords a suggestive illustration. The deceased had been a heavy drinker, and suffered from fatty degeneration of the heart. He had been advised by a medical man that he should not enter the bath, but in spite of the warning did so, and appears to have spent the greater part of a night in the hot and cold rooms alternately. It should be mentioned that about the same time he indulged, though not very freely, in drinking whisky. A few hours later he was found dead in the cooling room. We may remark in passing the obvious need of limitation in the time during which the establishment is allowed to remain open. In this case the immediate cause of death was clear enough to show that the danger in such cases, and it is a real one, depends on the bather's health at the time. It is generally allowed that weakness of the heart muscle from actual disease contraindicates a bath of this kind. There are also cases, however, in which almost equal caution is necessary, though the cause of weakness is mere exhaustion from temporary overstrain. This is a point to which the worried, the anxious, and the overworked would do well to give a due share of attention.

COMBINED CHLOROFORM AND COCAINE ANÆSTHESIA.

PROFESSOR OBALINSKI of Cracow, remarking the antagonism between chloroform and cocaine, determined to take advantage of it in anæsthesia for operative purposes, and has now employed the combined chloroform and cocaine method in twenty-four cases with, as he states, the most satisfactory results. He first administers chloroform by means of an Esmarch's mask until the stage of tolerance is reached, which is generally in from four to twelve minutes, with the use of from one to three drachms of chloroform. He then injects into the region about to be operated on a solution of cocaine of the strength of from 3 to 5 per cent., the total quantity of cocaine injected being from three- to five-sevenths of a grain. Even more than this might, he thinks, be safely used, both because chloroform is the best antidote to cocaine and because part of the cocaine is about to be removed from the body by the operation. After the injection no more chloroform is as a rule given, unless in protracted operations, when very small quantities are administered at considerable intervals. For this method several advantages are claimed, amongst others the following:—A smaller quantity of chloroform is sufficient; vomiting is very rare; the depression on awaking is much slighter than when chloroform only is used. The only disagreeable symptoms which Professor Obalinski has observed have been excitement and throwing about of the arms in some nervous people, but as this occurs when chloroform alone is used, it is not at all certain that it ought to be ascribed to the cocaine. He recommends the combined method for extensive operations, finding the local use of cocaine usually quite sufficient to render minor operations painless.

THE PAY PRINCIPLE IN HOSPITALS.

WE see a strong disposition in some quarters to make it appear that the pecuniary difficulties of London hospitals can be seriously reduced by exacting payments from the poor. It is true, as alleged, that there is a section of the community not so poor that they cannot afford some contribution to the hospital funds. The case of St. Thomas's Hospital is adduced in an article in an evening contemporary advocating this principle. At one time this hospital was so burdened with debt that it was contemplated to close five wards. But it was found that by admitting paying patients to two of these the authorities were able to keep open all the other wards. There is some force in this, but not very much, as St. Thomas's Hospital ought not to have been so embarrassed with debt; but we are ready to admit that there are classes for whom some special hospital accommodation on the payment system is required, and should be provided. But this is not the main problem for

benevolent people—which is to make the hospital available for the really poor, and to do this on terms of kindness and charity. It is incredible that they, in times of calamity, can make any serious contribution to hospital expenses. For times that are not times of calamity they do not need hospitals at all, and it is to be desired that they should not frequent hospitals. For such times the provident principle is sufficient, and the working classes ought to be left to make their own arrangements for attendance at home. But to call upon them in times of grave affliction to support the hospital system is to reverse our notions of charity, and to say that the rich people of this country are not willing or able to help the poor as they have always hitherto been able and willing to help them. To put people who can pay into the beds of existing hospitals is to exclude those for whom the hospitals were meant. We think this is to raise another hospital problem before settling the old one.

THE COLLEGE OF PHYSICIANS AND ETHICS.

WE understand that at the last meeting of the Royal College of Physicians the Censors' Board reported upon some recent cases of alleged infringement of professional ethics. In two cases explanations satisfactory to the Board had been given; but in a third, and apparently more serious case, a decision has not yet been arrived at. It appears that the Censors' Board received information of consultations being held by certain leading Fellows of the College—gentlemen who have held some of its highest offices—with a practitioner in the West-end alleged to be a homœopath. The Censors' Board, on applying to the gentlemen, were informed that they were not aware that the practitioner in question was a homœopath, that his practice did not conform to homœopathic principles, and, indeed, as he himself had declared in response to a question from one of the Fellows, that he was not a homœopath, but an "eclectic" physician. We forbear comment upon a matter that is still *sub judice*. Nevertheless, it may be well to recall a memorable resolution of the College, passed on Dec. 27th, 1881, after full debate: "While the College has no desire to fetter the opinions of its members in reference to any theories they may see fit to adopt in the practice of medicine, it nevertheless thinks it desirable to express its opinion that the assumption or acceptance by members of the profession of designations implying the adoption of special modes of treatment is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public. The College, therefore, expects that all its Fellows, Members, and Licentiates will uphold these principles by discountenancing those who trade upon such designations."

THE DANGERS OF CHLORAL.

ANOTHER instance of the dangers arising from the incautious use of chloral has been recently made public. Mark Robinson, a lad of eighteen years of age, who had some few months since begun a promising career in London, shot himself in a public cab. The most searching scrutiny has failed to assign any cause for the act, but the medical history is interesting and instructive. Gauged by the commercial standard, the boy was a valuable clerk, and a few days before his death had been promised promotion. From a medical point of view he was neurotic, and recently removed from schoolboy sports to the surroundings of city life he became neuralgic. In ignorance of the baneful effects of chloral he drifted into its incautious use, and on the night before his death appears to have taken five doses. He was found on his bedroom floor in the morning deeply narcotised that a medical man was called to see him. Both the latter and the boy's father were thankful for the disclosure, and were sanguine that the evil had been recognised in time. But soon afterwards, and while he was still unable to dress himself without assistance, he was summoned by telegram to attend at his office. Ill and quite unfit he went thither in a cab. What ideas must have passed through his mind during that arduous dressing and journey may be learnt from the sequel, for when his employer pronounced him incapable of signing a legal document as witness and sent him home he shot himself on the way with a revolver which had hung in his brother's room at his lodgings. An indolent, phlegmatic, or dissipated lad would have made no such history. But he was industrious, a teetotaller, and free from vice. To him chloral had no suggestion of vice, but it robbed him of his reasoning power and gave rein to an overwhelming idea of duty. How many such deaths will occur before the Government places restrictions upon the sale of chloral which will make its dangers obvious?

THE EDINBURGH UNIVERSITY CLUB.

THE Graduation Day, or, as it is called, the Capping Day, of the University of Edinburgh, is the 1st of August. It is always celebrated in London by a dinner of the University Club. On this occasion the chair was occupied by Sir Dyce Duckworth, a member whose connexion with it dates from a very early period. He spoke with much affection and respect of his *alma mater*. The toast of "The Visitors" was proposed by Mr. Vanderbyl, and was responded to by Mr. Thomson, the newly-appointed librarian of the British Museum, and Dr. Gee, who spoke respectfully of the Scottish schools, though he did not conceal his pride at the even greater antiquity of Bartholomew's Hospital. In the course of the evening it was announced that fifty gentlemen had proceeded to the degree of Doctor of Medicine, and 195 to the double degree of Bachelor of Medicine and Master of Surgery. Messages of congratulation passed between the meeting and Sir William Turner, who acted as promoter in the graduation ceremonies.

THE FLOODS IN THE ISLE OF DOGS.

AMONG the various districts which have suffered from the effects of the late heavy rains the low-lying quarters of London bordering on the Thames call for particular notice. Reports from the Isle of Dogs describe a state of destitution and misery such as many of our more favoured localities will hardly be able to realise. We read of floors submerged with sewage and rain-water to a depth of three feet, furniture ruined, inhabitants homeless, and obliged to sleep where they can in their wet clothes; of roads under water, of pumps acting incessantly, and of railway traffic arrested, the wooden sleepers floating over a submerged line. The hardships and the inconvenience of this miserable state are mainly due to the inadequacy of the existing sewers to remove effectually an excess of rain water in addition to their proper contents. The obvious argument n favour of a separate sewage and rainfall system will not e forgotten by the advocates of this arrangement; and so far, it will be admitted that life in the districts referred to is barely tolerable. We learn, in addition, that disease has already added somewhat to the prevailing discomfort. During the wet weather we may perhaps be spared the ravages of a local epidemic; but it is hardly possible that any considerable summer heat can follow without ripening the germs of disease which have been thus unexpectedly distributed among so many ruined homes and houseless families. Permanent pumps, we understand, are about to be erected in the submerged districts; but their action must, of course, be merely palliative. The real difficulty and source of danger remain as long as means are not taken to secure the free escape of

the sewage and storm-water, and these necessarily imply a radical alteration in the system of drainage. This object has been steadily pursued by the inhabitants of the Isle during twenty years; but, so far, the authorities applied to have afforded them no adequate remedy. The work is, no doubt, a large one; but it is also a pressing necessity which, even if staved off for a time, will almost certainly recur.

LIPOMATOSIS NEUROTICA.

THIS disease consists in the general subcutaneous deposition of fat in a pathological manner, the subject being an individual whose ordinary processes of nutrition are decidedly faulty. Dr. A. M'Lane Hamilton records a case in the *Archives of Pediatrics*, No. 55. The patient is the son of Mormon parents, both of whom are alive and well. Several instances of neuropathic transmission exist, there being at least one idiotic child. Among the members of the family of the patient various minor trophic skin and hair defects exist, one little sister having one white and one black eyebrow. The patient weighed 13lb. at birth, and was in good health till four years of age, when he had "whooping-cough" and fever. When five years old his face looked thin, and there were strong lines around his mouth when he laughed, and the calves of his legs at the same time became plump and large for a boy of his years. This condition continued for some time with extreme peevishness and irritability. But the case was, according to the author, not one of pseudo-hypertrophic paralysis. There was but little waddling and no very marked exaggeration of the dorsal curve. The tendon reflexes were easily obtained. The hips were mottled, and the circulation defective, and he complained of subjective cold. The muscles all reacted to the faradaic current. The sphincters were natural; sensation was perfect. A year later most of the symptoms had not changed; the knee jerks were still present and the tongue was large, thick, and broad. Now, however, the muscles of the face presented the reaction of degeneration, and the anodal stimulus was stronger than the cathodal. The muscles of the body generally reacted feebly to strong faradaic currents, but quite readily to a galvanic current of six milliampères with cathodal closure. Intellectually the boy presented a curious state of irritability and timidity, a destructive tendency being also marked. Duchenne called attention to certain subcutaneous depositions of fat in cases of atrophic muscular disease which were likely to be mistaken for true muscular substitution or "pseudo-hypertrophic paralysis." Landouzy has published a case of hemiplegia with great fatty deposits. Pitoux and this author observed subcutaneous adipose deposits in old cases of sciatica and neuritis, and Landouzy has reported a case of cervical pachymeningitis with neuritis of the brachial plexus, and atrophy of the muscles of one arm with a phenomenal increase in size due to fatty deposit.

SCAMPED DRAINS.

A CASE came before the Court of Appeal last week in which the plaintiff had bought a house from the defendant; the latter, in answer to an inquiry as to the state of the drains, having stated that he had spent £50 in putting them in order. Relying on this statement, the house was purchased; but soon three members of the plaintiff's family were suffering from enteric fever. On this occurrence taking place, the drains were opened up, and a condition of things was discovered which involved, amongst other things, the removal of forty cartloads of sewage-contaminated earth For the alleged misrepresentation, the illness, the alterations, and the consequent expenditure the plaintiff sought relief; but the jury found for the defendant, on the ground that he had been as much deceived by the builder as the plaintiff, and that there had been no fraudulent misrepresentation. The Divisional Court refused a new trial, and this refusal has been confirmed by the Court of Appeal, mainly on the ground that there had evidently been no wilful deception on the part of the defendant. The case is instructive as showing the limit of responsibility as regards persons selling or letting houses in the present state of the law, and as indicating the desirability, on the part of persons buying or leasing house property, of securing a definite warranty from the owners as to the sanitary circumstances of the property before purchase.

THE SANITARY REGISTRATION OF BUILDINGS.

THE Bill dealing with the better sanitation of dwelling-houses, schools, colleges, hospitals, factories, workshops, hotels, lodging-houses, and other buildings within the United Kingdom, prepared and brought into the House of Commons by Dr. Farquharson, Sir Henry Roscoe, Sir Guyer Hunter, and Dr. Cameron, entirely meets with our sympathy in so far as its general aims and principles are concerned. But we fear that in some of its details it will be found open to objection. The compulsory establishment of "sanitary registration authorities" throughout the kingdom is a most important step, and calls, above all things, for a competent staff of experts in order that justice may be done to the public. An attempt is made to secure such a staff by the initiation of examinations under certain bodies. These include the Royal Institute of British Architects, the Institution of Civil Engineers, the Institute of Architects in Ireland, the Association of Municipal and Sanitary Engineers and Surveyors, and the Surveyors' Institution; but it will be most unfortunate if all these bodies become competing authorities for the issue of certificates in sanitary practice. And if anything is done in the matter an effort should be made to secure a combination of these authorities for the purpose of a single certificate having uniform value. But pending the inauguration of the examinations in question, the Local Government Board are to be required to grant certificates to a body of individuals, some of whom are not really competent, and who will acquire the right to hold a Government testimonial of their fitness merely because they happen at the time of the passing of the Act to hold a certain office, which they have secured without any evidence of their competency to fulfil it. We more than doubt whether the Local Government Board will consent to be placed in such an invidious position; and we are inclined to think that, having regard to the small number of surveyors &c. who are well grounded in sanitary knowledge, the Bill should have been tentative in the first instance.

OPEN SPACES IN LONDON.

THE north of London is to be congratulated on a vote for £2500 of the Islington Vestry, which practically secures the purchase and preservation of the Clissold Park. This park, in Stoke Newington, covers fifty-three acres. It is bounded by the New River on one side. It is full of fine trees and beautifully laid out. Its destruction would have been a public misfortune. It is greatly to the credit of Messrs. Rumbelow, Watson Surr, Mote, Price, and others that they have persevered in this cause, in spite of the rough opposition to their first efforts. They have shown great public spirit in this. In every local body it is to be feared there are men who conceive of London as given over hopelessly to the speculative builder, and destined within a measurable distance of time to become a promiscuous wilderness of "long, unlovely streets." They forget that four or five millions of people need air, that life needs to be made healthier and pleasanter for them by the sight of trees and lawns. Happy the vestry that has

members who understand something of the conditions of health in a city of prodigious and unprecedented proportions. Other thanks are due to Parliament, which has facilitated this purchase by passing an Act of Parliament to enable outside parishes to contribute; and last, not least, to the Ecclesiastical Commissioners, who have given this park for this purpose for £10,000 or £12,000 less than they could have realised by selling it for other purposes. The vestry of Hackney, by a large majority, too, have voted £5000 for this purchase, which, to use the words of one of its members, Mr. Dabbs, preserves an ancient property, to create which would cost a million of money and a century of time. In regard to this momentous question of open spaces it is gratifying to note that the working-classes begin to perceive its significance for them. It is they chiefly who are to be benefited by open spaces. No wonder, then, that the Islington Vestry was memorialised in favour of the purchase by the Working Men's Association and by the London Trades Council.

VISIT TO BERLIN OF A FRENCH SEWAGE-DISPOSAL COMMISSION.

REFERRING to the recent visit of the French Senatorial Commission[1] to Berlin, to inquire into and report upon the sewering of Berlin, and the works of sewage disposal in operation there, Herr Stadtrath Marggraff, the chairman of the Kanalisations-Deputation of the Municipality, says, in a letter addressed to Mr. Charles Hancock, F.S.S., under date July 24th last, "The gentlemen composing the commission referred to, with Dr. Cornil at their head, expressed themselves on the whole very satisfied with all the results they saw achieved by our irrigation system, eulogised in particular the general cleanliness everywhere visible; while they were most favourably impressed, not merely with the good appearance of the crops grown, but above all with the excessively clear and undisturbed character of the effluent obtained."

FIRE INQUEST.

THE first fire inquest has just been held by the City Coroner, under the powers conferred upon him by the Act of Parliament recently passed at the instance of the Corporation in that behalf. In opening the proceedings he is reported to have said that he was anxious to make this inquiry as successful as possible, since it was contemplated to extend the system to other parts of the kingdom. The result, however, can hardly have realised his hopes, for the jury returned a verdict to the effect that the cause of the fire was unknown. This, though a somewhat "lame and impotent" conclusion, was no doubt inevitable, and the frequent rendering of such verdicts is likely to bring the system itself into unmerited disfavour, unless a wise discretion is exercised in the selection of the cases to be subjected to inquiry. The holding of an inquest indiscriminately in every instance of a large fire would, for example, not only entail a vast amount of wholly unnecessary work upon a coroner, but would tend at the same time to destroy the value of his labours. In the great majority of cases the cause is either perfectly well known or clearly undiscoverable, and no suspicious circumstances exist to point to crime. Where these conditions obtain an inquest is plainly undesirable. The report of the proceedings at the inquest in question does not indeed disclose much reason for the investigation, and it certainly was not justified by its results; but it may have been perfectly well founded for all that. We do not know. But if it should prove that the work of the fire inquest is heavy, we think that its execution should be provided for by the appointment of special officers, and not by the imposition of additional and onerous duties upon those whose hands are already full.

[1] This commission was composed of the following:—Dr. Cornil (chairman) Messieurs Combes (sec.), Léon Say (ex-minister), Maze, De Sal, Naquet, Krantz, Georges Martin, and De Verninac. They stayed in Berlin several days, and were preceded in their visit by Dr. Lannelongue and Mons. Beckmann, Chief Engineer to the Paris Municipality.

HEALTH OF ENGLISH WATERING PLACES AND HOLIDAY RESORTS.

THE table published annually in the Registrar-General's quarterly return for the three months ending June, giving recent mortality statistics for forty-six of the principal watering places and summer resorts, is probably widely consulted by those who are weighing their choice of a locality for the usual summer holiday. The table this year, however, is published without any estimates of population or calculated rates of mortality. "For it is recognised,' says the Registrar-General, "that, after several years have elapsed since the taking of a census, estimates of population in small communities are so uncertain that they cannot be regarded with that amount of confidence which would justify their official recognition." The table, however, still shows the number of deaths referred during the three months ending June last to each of the principal zymotic diseases in the several holiday resorts. This information, the value of which is quite apart and independent of all speculation as to the present population of the different communities, should be in the hands of all who are called upon to choose a safe and suitable holiday resort for children. For information relating to the individual places we must refer those interested to the Registrar-General's table. It may, however, be noted that the zymotic mortality in the aggregate of the forty-six places was almost identical with that recorded in the corresponding quarter of last year, and that it is higher than it should be in localities depending for their prosperity upon reputation for a clean bill of health. Sanitary authorities are too apt to regard the epidemic prevalence of measles and whooping-cough as inevitable visitations; but in the case of holiday resorts frequented by children it might be expected that the injurious results of such visitations upon the prosperity of a season would lead the local authorities to view them in a more serious light. Only a small proportion of our watering places have yet provided themselves with efficient hospital provision for isolation; fewer still make full use of such provision; and scarcely a single place turns this provision to account with a view to stem the natural course of an epidemic of measles or of whooping-cough. Only two deaths from small-pox occurred in these watering places during last quarter, and the deaths from enteric fever were fewer than in recent corresponding quarters, while those from diphtheria were more numerous.

DIPHTHERIA AND COW DISEASE.

THE epidemic of diphtheria in Moulsham, Essex, is disappearing as rapidly as it commenced, and both Dr. Downes, the medical officer of health, and Dr. Bodkin are agreed that the outbreak had no concern with any sanitary defects, but was related to a temporary ailment in certain cows, the milk of which had been used by those attacked; the diphtheria commencing and subsiding with the onset and disappearance of the malady in the cows. The conclusions arrived at as the result of a careful investigation are:—(1) That certain cows have been suffering from a disease which caused small eruptions on the udder; (2) that persons using this milk have been affected with diphtheria in a modified form; (3) that other members of the same family using other milk have not been affected; and (4) that when the cows in question recovered, their milk ceased to be injurious. It is stated that some of the eruptive matter

from the cows' udders has been sent to the Agricultural Department of the Privy Council, and it is to be hoped that samples were also forwarded to the Medical Department of the Local Government Board, who have long had under investigation the question of the relation of disease in the human subject with milch cows.

NAVAL MEDICAL SERVICE.

IN our "Medical Notes in Parliament" of this week will be found a very odd and not very intelligible question put by Mr. Frazer-Mackintosh, member for Inverness-shire, respecting the duties of the medical officers of the Marines. It appears that a probationary lieutenant of Marines was "suffering from a disease as a rule proving fatal unless timeously dealt with," of the nature of which, however, we are not informed, and that the surgeons took no steps, directly or indirectly, to inform him "that it was obvious he was labouring under an insidious disease and to warn him of his danger." The lieutenant's health "afterwards suddenly gave way, and failing to pass his final examination, he had been dismissed from the service." The hon. member did not explain in what manner the surgeon was to find out that the officer in question was labouring under this peculiar form of disease unless he was consulted by him, which appears not to have been the case, but the question seems to imply that there should have been no difficulty about this. Instead of asking whether "the time had come for laying down more humane rules" which would compel, and we may presume also enable, medical officers to divine the existence of disease, it would in our opinion have been more to the point if he had asked whether the time had not come when lieutenants, on joining the service, should be instructed to report themselves to the medical officer whenever they had anything the matter with their health, and should be warned that the neglect to do so would involve them in the consequences resulting from disobedience of orders. The lieutenant in question may have erred from ignorance or from neglect, or from intentional concealment, but it is very unfair that the surgeon should be blamed for the consequences of such a course. Lord G. Hamilton fully exonerated the medical officers from any blame in the matter.

THE POPE CELEBRATION.

A VERY special interest attaches to the bicentenary of the poet Pope, which is being celebrated this week at his own suburb, Twickenham. Not only has Alexander Pope left an indelible impress upon English literature and attained a high position in the ranks of British poets, but he accomplished his great task under a burden of adverse conditions that might well have excused a failure as marked as was his success. To say nothing of the serious impediments which a proscribed faith and an imperfect education threw in his path, we need only refer, for the justification of this remark, to the persistent bad health which from the very cradle fell to his lot. An invalid so helpless that he could not even dress himself without assistance, he succeeded, this notwithstanding, in doing work which has surprised the world not less by reason of the enormous industry involved than by its artistic excellence. Therein lies a wholesome moral. It is well not only for the numerous class of those who labour under physical disabilities to learn how much a capable mind and firm resolve may accomplish through the instrumentality of a crippled and shattered body, but it is well, also, for the still larger world to be reminded from time to time how much it owes to the objects of its pity; how much hard work has been done and how many excellent things have been achieved by the sick and the physically unsound. An honest delicacy will no doubt forbid the thrusting into prominence of this aspect of the great poet's life and work among his admirers who are gathered now at the Twickenham celebration, for he is great enough to dispense with all allowances in the estimate which men form of him; but in offering the expression of our sympathy and congratulation to the promoters of the movement we cannot refrain from touching upon what is to us a point of special interest in the career which they have brought so pleasantly to mind.

THE OXFORD EXTENSION SUMMER MEETING.

WE do not think that anything brighter or better can be done in this rainy weather than to join the University extension students at Oxford, extending from Aug. 1st to the 10th. Even there the rain may have a damping effect, but the intellectual entertainments and the good society will be powerful counteractions, and such is to be the variety of subject, of scene, and teacher that every taste may be sure of satisfaction. Professor Sanderson's two lectures on the Human Body will be delivered on Thursday and Friday, Aug. 9th and 10th, at 10.30 A.M. During the meeting there will be two conferences on University extension, each lasting two hours; the one on Friday, Aug. 3rd, at 8.30 P.M., at the High School for Girls, to be presided over by Dr. Percival, the head master of Rugby; the other on Aug. 7th, in the same place, at 5 P.M., presided over by Mr. H. L. W. Lawson, M.P., Balliol College.

A NOVEL VIEW OF THE NATURE OF CANCER.

DR. C. FORTES of Munich declares[1] from his microscopical examinations that true carcinomata are neither epithelial nor connective tissue tumours, but depend upon the introduction and multiplication of parasites, especially vesicular. He avers that they most resemble echinococcus multiloculari, and gives drawings which obviously show that he takes the alveolar structure to consist of an aggregation of cysts! The reason why these cancer-parasites have been hitherto overlooked is because their walls and their contents are so delicate and transparent as to be indistinguishable from the surrounding tissue. He further declares the "epithelial" cells to be the products or germs of the "cancer capsules." Such views have at least the merit of novelty, if of nothing else.

DISTRICT MEDICAL OFFICERS AND BOARDS OF GUARDIANS.

MR. EDWARD A. PIGGOTT, medical officer for the second district of the Risbridge Union (Suffolk), has been lately compelled to demand an official inquiry by the Local Government Board into his proceedings as district medical officer, in consequence of a series of unfounded charges of neglect which have from time to time been preferred against him by the Board of Guardians. Since Mr. Piggott's appointment some six years and a half ago there has been considerable friction in the medical administration of his district, so much so that he has had to sue the Board of Guardians in the County-court for a midwifery fee, upon which occasion they (the guardians) paid the fee into court. The official inquiry now referred to was held at the Kedington Workhouse on June 29th, before Mr. Lockwood, one of the Local Government Board Inspectors. The charge against Mr. Piggott embodied three distinct allegations of neglect, and was of such a nature as to seriously impugn his character in a professional respect. The Local Government Board, after due consideration of the evidence produced at the inquiry, have come to the conclusion that the Board of Guardians have failed to maintain the several charges against their medical officer, and therefore exonerate Mr. Piggott from all blame.

[1] Das Carcinom. Munich: Kutzner, 1888.

HIGHER EDUCATION.

AT the meeting of the Royal Commission on Higher Education on Saturday last, Mr. John Marshall, F.R.S., President of the General Medical Council, was heard in support of the views of those connected with the proposed Teaching University for London. Mr. J. F. Rotton (a member of the joint committee of University and King's Colleges), the Rev. Dr. Wace, and Sir George Young replied to various points raised by previous witnesses. The last sitting of the Commission before the vacation takes place to-day (Saturday), when Dr. R. D. Roberts will be heard on behalf of the University Extension Scheme, and Mr. R. Brudenell Carter for the Society of Apothecaries. Sir Henry James will express the opinions of the Societies of the Middle and Inner Temples on the formation of a Legal Faculty in any contemplated new University in London. The Commission will then adjourn until the commencement of October.

AURICULAR EPILEPSY.

THAT irritation of sensory nerves may provoke an attack of convulsions, or loss of consciousness, or indeed almost any other morbid nervous phenomenon, must be admitted sometimes even without the qualification that the central nervous ganglia are in a particularly irritable condition. There seems plenty of ground for believing that nervous attacks, not necessarily of typical character, but resembling Ménière's disease, may proceed from auricular irritation. Boucheron has attributed some of these attacks to excitation of the acoustic nerve resulting from labyrinthine compression (otopoesis) secondary to absorption of air from the cavity of the tympanum, often due to obstruction of the Eustachian tube. Insufflation of the tympanic cavity has relieved this pressure, and led to the disappearance of the epileptic phenomena. Boucheron thinks such cases are of common occurrence, and that they coexist with slight or gross lesions of the auditory nerves.

LAWSUIT AGAINST MEDICAL MEN.

A SOMEWHAT interesting lawsuit is going on in the Brunswick courts against two medical men, proprietors of an institution for patients suffering from nervous diseases. The plaintiff is a chemist, and his grievance is that the proprietors of the institution purchase from him drugs in large quantities, with which they make up their prescriptions for their patients themselves instead of sending them to him to make up. The court of first instance decided in favour of the defendants, on the ground that medical practitioners may make up medicine for their own families, and their patients were in this case inmates of their own house, and would consequently come under the same category, it not having been alleged that any medicine had been sold to persons outside. This decision has not been allowed to be regarded as final, the case having been taken into higher courts.

CHOLAGOGUES.

EXPERIMENTS on the cholagogue action of medicaments and their elimination by the bile have been made by MM. Prevost and Binet. In confirmation of Röhmann's researches, the animals employed (dogs) were maintained in good health by excluding fats from their dietary. The quantity of bile discharged was increased by alimentation, especially after the giving of peptones. Fat did not cause any augmentation. Warm or cold water, in doses of 150 to 200 c.c., caused a slight increase in the flow of bile. Strange to say, the employment of cold water injections did not disturb the biliary secretion; the assumed value of these enemata in icterus cannot therefore be easily explained. MM. Prevost and Binet find that bile is the most powerful cholagogue. Subcutaneously injected in sufficient doses, 3 c.c. to 4 c.c. for a rat, death supervenes on collapse, and the autopsy shows the intestines full of bile with liquid stools often containing blood.

HIGH ALTITUDES IN GRAVES'S DISEASE.

PROFESSOR B. STILLER of Buda Pesth has recently had two cases of exophthalmic goitre (Graves's or Basedow's disease), in which remarkable results were obtained by sending the patients to high or moderately high altitudes—that is to say, to health resorts in the Carpathians and the Tyrol, varying from 1500 ft. to 5000 ft. The explanation of the mode of action of this method of treatment is not very evident, especially as it has been generally taught that high altitudes are contra-indicated in cardiac diseases. Professor Stiller thinks it would be well to obtain further observations of the effect of altitudes not only on cases of Graves's disease, but on cases of disturbance of heart compensation generally.

CHOLERA INTELLIGENCE.

NO fresh news as to cholera in Europe is forthcoming. The rumour as to its appearance in Naples is denied, but it is evident from the quarantine restrictions imposed by the Austrian Government on shipping coming from the Port of Naples that the rumour has been credited in Austria. In Tonquin and in Cashmere the disease is said to be on the decline.

"THE MILIARIA OF PALERMO."

DRS. LEPIDI-CHIOTI and L. DE BLASI have been making bacteriological investigations on the subject of an infectious disease known as the miliaria of Palermo, the nature of which has not been well established, notwithstanding its unfortunately great frequency. The result of their researches, so far at least, has been to point to the identity of the disease with typhoid fever. Their investigations were conducted on two patients. From one of these some blood was obtained by puncturing the spleen, and from the other the fæces served as material. In both cases bacilli were cultivated, which presented great similarity to those of typhoid fever, and cultures in broth when injected into the venous circulation of guinea-pigs produced effects similar to those produced by cultures of typhoid bacilli.

REFLEX NEUROPATHIES.

THE eyes, the ears, the nose, and naso-pharynx constitute sources of reflex irritation leading to the production of various nervous diseases. According to French and German authorities these sensory areas are very fertile in the causation of headaches, epilepsies, coughs, giddiness, gastralgia, and so forth. Ruault and others assert that a great variety of chronic morbid processes of the nose and naso-pharynx may cause such affections, which are also frequently easily cured by local treatment.

PENSIONERS OF SCIENCE.

THE quaint formulas in which it is customary to announce the award of Civil List pensions brings forcibly to mind the familiar but melancholy fact that a life spent in the successful advancement of art or of science affords no guarantee of worldly prosperity or even of freedom from pecuniary embarrassment. Among the names published in the latest return we notice that of Mrs. Mary Hutchinson, to whom, "in consideration of the services of her late husband, T. J. Hutchinson, Esq.,

M.D., of H.M.'s Consular Service, and of his literary attainments," there has been assigned a pension of £20 a year. Another and still more distinguished name is that of Mr. W. Kitchen Parker, F.R.S., whose splendid work in the field of biology is universally known and recognised. Upon him the burden of years has fallen, and we learn with sincere satisfaction that it is to be lightened in future by a subvention of £100 per annum from the Civil List. It is pleasant to be able to record this modest but highly useful employment of public money to the recognition and aid of neglected merit.

FOREIGN UNIVERSITY INTELLIGENCE.

Amiens.—Dr. Mollien, Professor of Anatomy, has been transferred to the Chair of Clinical Medicine.

Berlin.—Professor Hertwig, who was recently appointed to the Second Professorship of Anatomy, will undertake the instruction in Embryology, Professor Waldeyer confining himself to Anatomy proper, naked-eye and microscopical. It is noteworthy that the professorship which was formerly held by Johannes Müller is now divided into four separate chairs.

Berne.—Dr. Sahli has been appointed Professor and Director of the Medical Clinic, in succession to Professor Lichtheim, who has gone to Königsberg.

Buda-Pesth.—Professor Géza Antal has been given charge of the Skin and Venereal Department of the Rochus Hospital.

Königsberg.—A Bacteriological Laboratory is to be erected under Professor Baumgarten.

Prague (Bohemian University).—Dr. Carl Chodounski has obtained recogition as *privat docent* in Pharmacology and Toxicology.

Vienna.—Dr. J. Wagner Ritter has been authorised to act as *privat docent* in Mental Diseases.

Würzburg.—Professor Röntgen of Giessen has been appointed Professor of Physics. Professor Lehmann, who had been invited to Giessen, has been induced to decline the invitation and remain in Würzburg, by the promise of a satisfactory Hygienic Institute. There seems to be some difficulty in filling up Scanzoni's chair, it having been already offered to Professor Fritsch of Breslau and Professor Kaltenbach of Halle, and declined by both of them. It is now intended to offer it to Professor Hofmeier of Göttingen.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Koloman Balogh, Professor of Pharmacology in the University of Buda-Pesth, and co-editor of the Hungarian medical journal, *Orvosi Hetilap*. He was the author of numerous papers and of students' manuals, and his notes on the Hungarian Pharmacopœia gained the prize of the Academy of Sciences. He was fifty-four years of age.—Dr. Delcroix, medical officer of the Infirmary of Rebecq, Belgium.—Dr. Fieuzal of Paris.

IT is reported that Plant City, South Florida, has been depopulated, with the exception of two or three persons who are unable to be removed and a few attendants, by fever. The buildings, furniture, &c., will, it is stated, be consumed by fire, to effectually destroy any germs of disease, and night and day a strict cordon will be kept up about the city until the frost comes, to prevent any persons from going into other sections of the State.

DAVID L. MORGAN, C.B., M.D., Inspector-General, has been appointed an Honorary Physician to the Queen, in place of Inspector-General Domville, deceased.

THE Select Committee of the House of Lords appointed at the instance of the Earl of Dunraven to inquire into the sweating system at the East-end of London have presented a report, together with minutes of the evidence adduced before them. They propose to resume the inquiry on the reassembling of Parliament in the autumn, and, subject to the approval of the House, to so enlarge the scope of the investigation as to include the whole of the United Kingdom. It is expected that the House will on Friday give its sanction to this proposal.

THE sudden death, from cardiac disease, is announced of Mr. Frank Holl, R.A. The deceased gentleman, it will doubtless be remembered, was the artist to whose skill the life-like portraits of Sir William Jenner and Sir Andrew Clark, which are exhibited in this year's Royal Academy exhibition, owe their origin; he had also undertaken to paint the portrait, which is now being subscribed for, in memory of the late Dr. Wilson Fox.

SURGEON EVANS GARNONS LLOYD, late 1st Battalion, Rifle Brigade, died on the 22nd ult. at Gresford, North Wales, aged eighty-seven. Mr. Lloyd entered the Army as hospital assistant in January, 1827, and retired on half-pay in 1852 as surgeon in the Rifle Brigade.

DR. CULLINGWORTH has been appointed visiting physician to the General Lying-in Hospital, rendered vacant by the resignation of Dr. Robert Boxall, and will enter upon his duties forthwith. It is understood that the appointment will require confirmation at the next meeting of the governors.

THE Lettsomian Lectures of the Medical Society of London will be delivered next year by Dr. Gowers, F.R.S., who will take for his subject, "Diseases of the Nervous System due to, or related to, Syphilis."

METROPOLITAN HOSPITAL SUNDAY FUND.

ON the 31st ult., a special meeting of the Council of the Metropolitan Hospital Sunday Fund was held at the Mansion House, under the Presidency of the Lord Mayor, for the purpose of receiving the recommendations of the Committee of Distribution as to the amounts to be awarded to the various hospitals and dispensaries from the fund collected on Hospital Sunday.

The notice convening the meeting having been read, the Secretary announced that he had received letters expressing the writers' inability to be present, and then read the minutes of the last meeting of the Council, which was held on May 29th.

Sir SYDNEY WATERLOW then proposed the following resolution: "That the Report of the Committee of Distribution for the year 1888 be, and is hereby, approved, and that the several awards recommended be paid as soon as possible." It was, he said, the sixteenth time that, as Chairman of the Committee of Distribution, it had fallen to his lot to ask the Council to approve of the annual report, and to confirm the awards which had commended themselves to the Committee. Alluding to the appearance of the report in several daily and weekly papers, Sir Sydney Waterlow expressed his regret that such had occurred, as it had not yet received the confirmation of the Council, and on behalf of the Distribution Committee he disclaimed all knowledge as to how the document was procured by the conductors of those journals. The report which was presented to the Council might be divided, he remarked, into two parts—viz., the amount of money collected and the amount and manner of its distribution. He congratulated the Lord Mayor upon the good collection which had been received—it was, in fact, the largest since the institution of the fund. Up to the present time, £39,536 had been received, and 103 congregations had not yet sent in their col-

lections, so that a further sum of about £1500 might be confidently expected. The total amount received last year was £40,607. The number of congregations who made collections for the fund was last year 1633, and this year 1648, showing an increase of 15, which was a matter for sincere congratulation. With reference to the 4 per cent. spent on surgical appliances, the money was well spent; no money could be better used. Sir Sydney then explained the manner in which this fund is distributed, and reported that the committee had received several deputations from various institutions. Public criticism of the fund had been this year greater than ever, and he was glad of it. Such criticism, as tending to keep up public interest in the movement, was what the Council most earnestly desired. In 1875 the number of awards to general hospitals was 17, now it is 22; to special hospitals 43, now 51; to convalescent homes 7, now 18; to cottage hospitals 3, now 11; and to dispensaries 47, now 50. With reference to the award of £520 made to Guy's Hospital, it was, he said, larger than if calculated upon the basis of principle laid down by the rules of the Council; but the committee had been placed in a difficult position. The hospital was situated in a poor district, one of the poorest, he opined, in the whole of the metropolis, and it was felt that there was urgent necessity for the maximum number possible of free beds to be kept open, and he trusted that the Council would confirm the award, which was not nearly so large as those made to several other general hospitals. Another question of principle which was not mentioned in the report was that at a certain West-end church no collection was made on June 10th, but on June 17th a collection was made, and the proceeds handed over to a certain hospital. The committee felt that in this case the law should operate, by which the amounts of any such collections are deducted from the amount of the award from the fund. Sir Sydney concluded by referring to the increase in the amounts collected at the various churches, which generally give the largest amounts. St. Jude's this year heads the list, but if the average for two years is taken, St. Michael's takes the premier position with £1012, as against some £900 odd at St. Jude's.

The Rev. R. RHODES BRISTOW, vicar of St. Stephen's, Lewisham, then briefly seconded the adoption of the report.

Dr. GLOVER complimented Sir Sydney Waterlow on his lucid and exhaustive statement, but wished to call attention to the amounts awarded to three institutions. University College, a most deserving institution, received less than last year, now only getting £1354, against £1510 in 1887. The Metropolitan Free Hospital in Kingsland-road received £208. The expenses of management in this hospital amounted to 48 per cent. It was conducted on new, but, in his opinion, doubtful principles. The contributions of the patients amounted to £52 only, and he would be glad to learn more of the facts of this interesting case. With respect to the Establishment for Gentlewomen in Harley-street, it was, he said, a most useful institution, and the fact that it had received £40 less was the more noticeable, because other similar institutions had received larger awards.

Sir S. WATERLOW said that with respect to the last-named institution particular pains had been taken, and two interviews had been held with the management. The Committee of Distribution were satisfied that the expense of management was excessive, and that more voluntary work was needed. The average number of beds occupied was ten, and the number of paid officials was as follows: Chaplain, matron, medical officer, housekeeper, four nurses, and seven servants. The fees to patients had been raised, and this deterred many from entering the establishment. The total expenditure was £2000 per annum, each patient costing £4 15s. per week. With regard to University College, the cost of management was so great compared with other similar hospitals that it had not been felt possible to make a larger award. With regard to the Metropolitan Free Hospital, the committee took into consideration the transference of the hospital and the consequent irregularity in its work. They were always reluctant to depress by a diminished award the management of any institution during its rebuilding or enlarging.

Sir EDMUND CURRIE explained that the provident system had only just come into operation, and that the expenses would soon be materially reduced

The LORD MAYOR then put the resolution to the meeting, and it was declared carried.

A cordial vote of thanks to His Grace the Archbishop of Canterbury and to the other speakers at the Mansion House meeting of June 8th, and also to the editors and proprietors of THE LANCET and other journals for special exertions and publications in connexion with the Hospital Sunday Fund both before and after Hospital Sunday, was then moved by Sir Edmund Currie, who said that he considered £40,000 per annum was totally inadequate as the contribution of the richest city in the world, the average collected from each congregation being about £24, not a shilling a head, and the resolution, having been formally seconded, was carried unanimously.

The Rev. R. G. SIMPSON then moved: "That the cordial thanks of this Council be and are hereby given to the chairman and other members of the Committee of Distribution for the labour they have bestowed in the preparation of the awards they have recommended, and for the very efficient report of their proceedings." The resolution, he said, spoke for itself. Those who were alluded to in it did the work, others merely criticised. He was glad to have heard the healthy cross-examination made by Dr. Glover, and felt that the committee were able to answer all questions. He advocated the increase from 4 to 5 per cent. of the sum spent in surgical appliances.

Dr. GLOVER seconded the resolution, remarking that the distribution as a whole commends itself to public opinion, and to the opinion of the Council.

The LORD MAYOR, having supported the resolution, declared it carried unanimously.

Sir SYDNEY WATERLOW then returned thanks, and moved: "That the cordial thanks of the Council be and are hereby given to the Right Hon. Polydore De Keyser, who, as president and treasurer of the fund, has given his zealous attention and valuable time to ensure the success of the collections, and who has thus enabled the Council to disburse the large amount of £39,321 17*s.* 6*d.*"

The resolution having been carried with acclamation,

The LORD MAYOR briefly returned thanks, and the meeting terminated.

The following particulars of the distribution of the Hospital Sunday Fund awards this year will be of interest to our readers. The general hospitals which receive donations this year number twenty-two, and draw in the aggregate £18,661. The largest recipient is, as usual, the London Hospital in Whitechapel, which obtains £3333. Guy's Hospital is this year added in this class, and receives £521. Five Chest Hospitals have a sum of £3490 allotted between them; twelve children's hospitals, £3083; three lying-in hospitals, £469; six hospitals for women, £1526; and twenty-four special hospitals of various classes, £3933. The last mentioned group includes the London Fever Hospital, but the amount stated does not comprehend any award to the St. John's Hospital for Diseases of the Skin, which is held over pending litigation in which the hospital is involved. Eighteen convalescent hospitals receive £2845; eleven cottage hospitals, £448; seven institutions of various kinds, £922; and fifty dispensaries, £2341. The total distributed amounts, as elsewhere stated, to £37,721, and the usual proportion of 4 per cent. of the sum collected has been set aside as a fund for the purchase of surgical appliances, and amounts to £1600.

ARMY MEDICAL SCHOOL, NETLEY.

THE summer session of the Army Medical School at Netley was brought to a close on the 30th ult., when the prizes gained by the candidates for commissions in Her Majesty's Indian Medical Service were distributed by Colonel Sir Owen Burne, K.C.S.I., member of the Council for India, who was accompanied by Director-General Sir Thomas Crawford, K.C.B., Sir Joseph Fayrer, K.C.S.I., Surgeons-General Sir Thomas Longmore, C.B., D.C., Fraser W. S. Murray, W. C. Maclean, C.B., Professor Sir William Aitken, F.R.S., Deputy Surgeons-General D. Boyes Smith, T. Blatherwick, W. M. Webb, Colonel W. Henning Lee, Brigade-Surgeons Godwin, Surgeons-Major T. Babington, F. Dick, Rob. Harvey, W. T. Martin, and Battie, Surgeons Davies and McGill, Major F. F. Hobbs, the Rev. F. Beamish, G. F. Steven, R. E. Kavanaugh, and the Secretary to the School (Mr. T. Borchert).

Sir THOMAS LONGMORE, having read the list of successful candidates (which is published elsewhere),

Sir OWEN BURNE expressed the pleasure and satisfaction

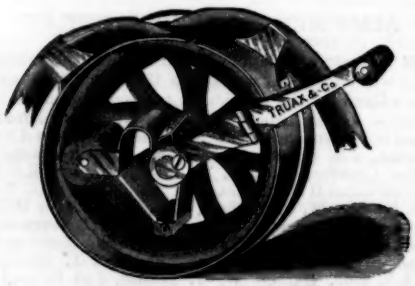
which it gave him to distribute the awards. The position of a medical officer was, he said, both honourable and difficult. It was honourable, because as a loyal subject of the Queen he had to cure friends rather than kill enemies; and it was difficult, because when a medical officer joined a body of men who sometimes did not appreciate him at his full worth, he had to assert himself and show he was master of his profession. Of all the causes or means of destruction to which the profession of arms was subject the most potent was disease; and for this reason all great military commanders, such as Wellington and Napoleon, had given their chief attention to the health of the troops. And why? Simply, speaking in the most selfish sense, because health meant numbers. Even death, as he saw written the other day, was not so great an enemy to them as disease. Death certainly diminished numbers, but disease not only did that, but, in addition, took away men, money, guards, surgeons, hospitals, and carriage, so that very often in critical cases an army in the field was crippled by it. Therefore, he would ask all medical officers to remember that prevention is better than cure, and that their duties were preventive rather than curative. They would, he was sure, excuse him if he gave them a few "wise saws" which they might put in their pockets and carry away, perhaps with advantage. He would urge all alike to treat the soldiers under their charge as if they were private patients, paying large fees, and able to change their medical men at any time they pleased. Let them care for their own health, and show an example in that as well as in other things to those around them. Let them remember they were not combatant or fighting officers, but scientific men; that they were men of medicine, and ought to be proud of the fact. Let them lay to heart, and impress upon others wherever they could, that military hygiene required very great capabilities. In concluding his remarks, Sir Owen Burne reminded his hearers that they could not all be heroes, nor was life altogether heroic, but they could all be straightforward, honourable, religious gentlemen, carrying on their daily round of duties with advantage to themselves and to others. Commonplace as it might appear, this common round of duty was the most honourable thing that a man could fulfil.

Sir JOSEPH FAYRER then delivered a brief address of congratulation and encouragement; after which a vote of thanks was accorded to Sir Owen Burne, and the proceedings terminated.

THE ALLEN SURGICAL PUMP.

IN our issue of Oct. 29th, 1887, we gave a short description of this instrument, which is remarkable alike for the simplicity of its mechanism and the range of its application to surgical purposes. We have since had an opportunity of making a more detailed examination of its singular merits, and proceed to give the results of our investigation. The motive power, on the principle of suction, is gained by

FIG. 1.



the pressure in revolution of a roller contained in a steel framework upon a stout indiarubber tube, so arranged that the tube in question remains *in situ*, and only requires removal after long continued use. (See Fig. 1.) The framework can be fixed to the back of a chair or bedhead, and can be placed in either a vertical or horizontal position. (See Fig. 2.) By turning the handle, air or fluid, as the case may be, is driven through the tube in a direct or reverse current. With the instrument before us—the one recommended for general use—two and a half revolutions of the handle will cause exactly one ounce of fluid to pass through the tube. Thus it will be seen that we have not only a means of propelling fluid through the tube, but also of measuring the quantity of fluid to a nicety. Let us take one of the many uses to which this invaluable instrument may be put—viz., washing out the bladder. The bladder is first emptied of urine by simple catheterisation. Then a soft catheter is fixed to one end of the rubber tube, the other end of the tube being placed in the fluid intended for injection into the bladder. The handle of the pump is turned until the fluid commences to run out of the eye of the catheter, so that all air is expelled from both tube and catheter. The latter is now introduced into the bladder, and the requisite amount of fluid injected—measured, as aforesaid, by noting the number of revolutions of the handle. To withdraw the fluid from the bladder, all that has to be done is to reverse the direction in which the handle of the pump is turned. The operation can be repeated as many times as desired. There is a clip on the framework of the pump on the side opposite to the handle, by means of which the

FIG. 2.

roller inside is made to press firmly or lightly on the elastic tube, according as it is in or out of action. We may briefly note a few of the other uses to which the pump can be put:—1. The tube can be fixed to a cupping-glass—a set of these are contained in the case—and the operation of cupping easily, rapidly, and efficiently carried out. It has the advantage over the ordinary methods of cupping, in the first place that the suction can be graduated at will, and secondly that no heating apparatus is required to rarefy the air. 2. It can be used as a breast-pump. 3. It gives the means of expanding rubber bags either for tamponing or dilating; thus it may be employed for arresting hæmorrhage, say, from the rectum, uterus, or nose, or for enlarging the cervical canal in obstetric practice. 4. It gives a perfect aspiration, allowing (*a*) a vacuum to be carried up to the point of the needle, as in a Dieulafoy; (*b*) fluid to be injected into the emptied cavity and withdrawn at will without once removing the needle or disconnecting the individual parts of the apparatus. 5. It can be fixed to a stomach-pump, the exhausting power of which can be controlled with ease and accuracy. Should any solid pieces of food, for example, plug the orifice of the tube in the stomach, they can be dislodged by simply reversing the movement of the handle of the pump. As in the bladder, so here. The instrument is serviceable for washing out the cavity, and as no disconnexions are requisite, the operation of empty-

ing and cleansing the stomach can be performed rapidly, a matter of no little moment in case of poisoning. The instrument has another advantage—viz., that it admits of being maintained aseptic throughout an operation, a great desideratum where internal passages and cavities are the seat of operative procedure—for instance, tapping abdominal cysts, washing out the bladder, &c. Finally, we may quote a passage from the descriptive catalogue: "It may be successfully used as an instrument for litholapaxy, the transfusion of blood, as an epistaxis instrument, the feeding of insane patients, treating cases of intussusception of the bowel, in evacuating the contents of ovarian cysts, and in washing out the peritoneal cavity." The entire apparatus, with a number of accessories, most of which have been referred to, are contained in a handy portable bag.

We can scarcely speak too highly of the apparatus before us. It is a marvel of the scientific application of mechanism to surgery. We predict for it a very general, if not a universal, employment in the profession. The instrument is manufactured by Chas. Truax and Co., 75 and 77, Wabash-avenue, Chicago, Illinois, whose representatives in this country are Messrs. Hilliard and Sons, 65, Renfield-street, Glasgow.

A GERMAN SYDENHAM.

(From a Correspondent.)

BY those who believe that the physician, like the poet, is born not made, a corroborative instance will be recognised in the octogenarian, Dr. Franz von Gietl of Munich—"Father Gietl," as the later generations of students loved to call him—who died at his post on March 19th. Accompanying him through the medical wards of the Munich General Hospital, the visitor was immediately impressed with his centripetal insight into the significance and the source of symptoms—with his possession of the "physician's eye," traditionally ascribed to our own Sydenham. No man rated more lightly than von Gietl the pretensions to "physiognomonic diagnosis" which some have claimed as superseding the application of scientific tests; in fact, his whole life was devoted, with an energy and concentration all his own, to mastering or perfecting every aid with which physics, or chemistry, or microscopy could arm him. But with his discriminating memory, ranging down a retrospect of thousands of cases, he divined the meaning of look, expression, attitude, tone—the *ensemble* of the patient's "address," so to speak; and he could tell at a glance the nature of the mischief brewing underneath, with the swiftness and the certainty of the veteran pilot, who can read from the ripple or complexion of the water whether there is rock or shoal, or cross-current to steer clear of. On a less apt physician all this observation would have been wasted; but with him, as with Sydenham and many another born practitioner,

> "Old experience did attain,
> To something of prophetic strain."

The symptom interested him only as suggesting the source, and, till he had found this, he was sparing, to a fault, in his exhibition of drugs. It was said of him, with pleasant exaggeration, that he could have written his pharmacopœia on his thumbnail. Even after satisfying himself as to the disease, he would treat it in the simplest fashion. Pneumonic patients frequently got nothing from him but hot tea, and made quick and lasting recoveries. Unlike his contemporaries, he latterly withheld quinine in typhoid, holding it, with Tommasi-Crudeli, to be a veritable poison to the vaso-motor system, and especially injurious to the heart. Such fever patients he treated with baths, but only tepid baths, mostly of 23° (Réaumur), often as low as 18° R.; and if asked why he did not prescribe a colder temperature he would smile, and say that it was he who had introduced the cold-water treatment of typhoid into Munich, but that he had learned better than to give baths at 12° R. His other treatment of such cases consisted in nutrition and nursing. His practice, he used to say, hailed from a time when "Feeding your patient you feed the fever" was an aphorism. But as soon as he could think for himself he made the contrary his rule and drew from the writings of Saint Vincent de Paul those lessons as to nursing which, in the founder of that order, amounted to an inspiration. His honesty was a distinguishing characteristic of him. To the last he maintained that the teacher should still be the first to learn, and when commissioned to investigate an explosion of cholera or typhoid he would set microscopists, chemists, meteorologists, and physicians to work and weary or worry them with questions that often "remitted them to their studies." His researches on cholera remount to its first appearance in Europe in 1831, and he soon reached conclusions which have since been accepted; for instance, that there is a specific cholera poison, the development of which depends on atmospheric influences co-operating with geographical site. Water had not, in his opinion, the slightest share in the diffusion of cholera; it spread through the food and the insanitary dormitory. But he was too sound an observer to think he had said the last word on so obscure a pathological question. In 1873 he wrote, resignedly: "Everything in nature, even morbid life, moves by law, but no disease is so unvacillating, so rigid as cholera." From his researches into it he formed his peculiar theory of fever—namely, the febrile state resides essentially in the parenchymatous fluid or the tissue water (*die Parenchym-flüssigkeit oder das Gewebswasser*). This he learned from those cases in which typhoid patients with high temperature were seized with cholera and profuse diarrhœa, with the result that the fever at once disappeared. But this he left unmatured, nor carried it beyond the stage of "sufficient reason." His energy abode with him till his eighty-second year, when he still paced the wards as physician in ordinary to the Munich General Hospital, where he made his rounds twice daily, and so left his impress on successive generations of students that the "homœopathic heresy" never had a chance of establishing a clinique in the Bavarian capital. Open as he was to the newest finding or suggestion, he revered the old paths, keeping up his Latin with a punctilio that amused and sometimes annoyed the latter-day school. With his great teacher Grossi, of whom he always spoke enthusiastically, Latin was his only medium of communication, and the ease and grace with which he wrote it may be seen from his inaugural thesis of 1829: "Fragmenta Pathologica de Neurogangliis." He was the trainer, the professional parent, of thousands of busy practitioners throughout Bavaria, South Germany, and Switzerland, who ascribed their soundest ideas and practice to "Father Gietl." An hour before his death he was so far conscious as to say, "I am now in dissolution," and, after thanking affectionately all his relatives and attendants, he asked for a hand-mirror in which to view his features. Having done so, he sank back and gradually passed away. His funeral attested the love and respect in which all the light and leading of the Bavarian capital held the octogenarian physician—the "German Sydenham," "Father Gietl."

SOCIETY FOR THE STUDY OF INEBRIETY.

THE Royal Assent to Permanent Legislation for Inebriates was the occasion of a reception by the President and Council of the Society for the Study of Inebriety to the Inebriates Legislation Committee of the British Medical Association, on Friday, the 27th ult., in the rooms of the Medical Society of London.

After a service of refreshments, the President, Dr. Norman Kerr, took the chair, and congratulated the company on the successful issue of a quarter of a century's agitation by the British Medical Association, aided by other bodies, in the enactment of permanent legislation in place of the previous temporary measure. He acknowledged gratefully the valuable services of Sir R. Christison, Dr. A. Peddie, Drs. Donald Dalrymple, Alfred Carpenter, and Stephen Alford; Lord Aberdeen, Dr. Cameron, Sir Walter Foster, Sir Trevor Lawrence, and Sir Lyon Playfair; and specially desired to thank the Government and the Home Secretary, Mr. Matthews, who had done so much to facilitate the progress of the Bill through Parliament. Dr. Kerr had still a lively recollection of similar services at the hands of the then Government and Lord Cross, nine years ago. This, however, was but the first step. All the energies of the friends of the victims of the disease of inebriety must be now devoted to the amendment and improvement of the law to the inclusion of chloral, chlorodyne, and opium inebriety, to the provision of medical care and treatment for the poor, and to compulsion

in incorrigible cases, a far cheaper and better plan than punishment, which was no cure for inebriety. Mrs. Lawson Bunten (Miss Aitken) gave some recitations which were much applauded.

Amongst the resolutions passed was one asserting that the meeting regarded the Inebriates Legislation Act as incomplete and imperfect, and strongly urging the need of such amendments as may be necessary to render the admission to a retreat as simple and easy as possible; to include all forms of inebriety; to empower the proper authority to grant compulsory admission, in well-defined cases, of inebriates unwilling to apply voluntarily; and to provide medical care and treatment for poor and destitute inebriates. Other resolutions thanked the medical press, the Government and Home Secretary, the British Medical Association, and the Houses of Parliament.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5314 births and 2844 deaths were registered during the week ending July 28th. The annual rate of mortality in these towns, which had been 15·0, 15·7, and 16·0 per 1000 in the preceding three weeks, declined again last week to 15·8. During the first four weeks of the current quarter the death-rate in these towns averaged but 15·5 per 1000, and was 5·5 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 8·1 in Derby, 8·3 in Brighton, 12·0 in Nottingham, and 12·4 in Leicester. The rates in the other towns ranged upwards to 20·3 in Manchester, 22·1 in Bolton, 22·3 in Huddersfield, and 25·4 in Halifax. The deaths referred to the principal zymotic diseases, which had been 354 and 311 in the preceding two weeks, rose again last week to 409; they included 156 from diarrhœa, 65 from whooping-cough, 62 from measles, 48 from scarlet fever, 40 from "fever" (principally enteric), 35 from diphtheria, and only 3 from small-pox. No death from any of these zymotic diseases was registered during the week in Derby, whereas they caused the highest death-rates in Newcastle-upon-Tyne, Preston, Blackburn, and Halifax. The greatest mortality from diarrhœa occurred in Wolverhampton, Oldham, Liverpool, and Sheffield; from measles in Leeds, Leicester, and Halifax; from whooping-cough in Manchester and Halifax; from scarlet fever in Birkenhead, Bolton, and Blackburn; and from "fever" in Salford and Newcastle-upon-Tyne. The 35 deaths from diphtheria included 21 in London, 4 in Liverpool, 4 in Manchester, and 2 in Sunderland. Small-pox caused 3 deaths in Preston, but not one in London or in any of the twenty-six other large towns. The Metropolitan Asylum Hospitals and the Highgate Small-pox Hospital contained only 2 small-pox patients at the end of the week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 861 at the end of the week, against numbers declining on the preceding four Saturdays from 924 to 889; 87 cases were admitted during the week, against 103 and 105 in the two previous weeks. The deaths referred to diseases of the respiratory organs in London, which had been 176, 164, and 166 in the three preceding weeks, declined last week to 160, and were 28 below the corrected average. The causes of 48, or 1·7 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Leicester, and in seven other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Bradford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 16·1 and 18·4 per 1000 in the two preceding weeks, declined to 15·3 in the week ending July 28th; this rate was 0·5 below the mean rate during the same week in the twenty-eight large English towns. The rates in these Scotch towns ranged from 10·9 and 11·5 in Aberdeen and Greenock, to 17·6 in Perth, and 24·5 in Paisley. The 387 deaths in the eight towns showed a decline of 79 from the number in the previous week, and included 21 which were referred to diarrhœa, 6 to whooping-cough, 5 to measles, 3 to scarlet fever, 3 to diphtheria, 3 to "fever," and not one to small-pox; in all, 41 deaths resulted from these principal zymotic diseases, against 28 and 35, in the preceding two weeks. These 41 deaths were equal to an annual rate of 1·6 per 1000, which was 0·7 below the mean rate from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had been 8 and 12 in the preceding two weeks, further rose last week to 21, but were 18 below the number returned in the corresponding week of last year. The deaths referred to the other zymotic diseases did not vary considerably from the numbers returned in the previous week. The 6 fatal cases of whooping-cough and the 5 of measles were all returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 68 and 84, in the preceding two weeks, declined last week to 46, and were 16 below the number returned in the corresponding week of last year. The causes of 52, or more than 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 22·6 and 19·4 per 1000 in the preceding two weeks, further declined to 18·0 in the week ending July 28th. During the first four weeks of the current quarter the death-rate in the city averaged 20·1 per 1000, the mean rate during the same period being 15·6 in London and 15·8 in Edinburgh. The 69 deaths in Dublin showed a further decline of 9 from the numbers in recent weeks; they included 4 which were referred to scarlet fever, 2 to "fever" (typhus, enteric, or ill-defined), 1 to whooping-cough, 1 to diarrhœa, and not one either to small-pox, measles, or diphtheria. Thus only 8 deaths resulted from these principal zymotic diseases, against 21 and 16 in the preceding two weeks; these were equal to an annual rate of 1·2 per 1000, the rate from the same diseases being 2·7 in London and 0·6 in Edinburgh. The deaths from "fever," whooping-cough, and diarrhœa showed a considerable decline from the numbers in recent weeks, while the fatal cases of scarlet fever exceeded those returned in the previous week by 1. Five deaths from violence and 3 inquest cases were registered; and 39, or nearly a third, of the deaths occurred in public institutions. The causes of 17, or 14 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—The date of Surgeon G. D. Hunter being seconded for service with the Egyptian Army is June 9th, 1888, and not as stated in the *Gazette* of May 29th, 1888.

ARMY MEDICAL RESERVE OF OFFICERS.—The undermentioned Officers to be Surgeons-Major, ranking as Majors (dated Aug. 1st, 1888):—Surgeon Geo. Hogarth Turnbull, M.D., and Honorary Surgeon-Major George William Hatchell, 3rd Battalion, the Connaught Rangers. The undermentioned Officers to be Surgeons, ranking as Captains (dated Aug. 1st, 1888):—Surgeon George Harrison, the Earl of Chester's Yeomanry Cavalry; Acting Surgeon Robt. Thornton Meadows, M.B., 2nd Volunteer Battalion, the Duke of Cornwall's Light Infantry; and Acting Surgeon Alex. Disney Leith Napier, M.D., 1st Haddington Artillery Volunteer Corps.

BENGAL MEDICAL ESTABLISHMENT. — Surgeon-Major Jesse Griggs Pilcher to be Brigade Surgeon (dated May 14th, 1888).

ADMIRALTY.—The Good Service Pension of £100 a year for Inspectors-General of Hospitals and Fleets, vacant by the death of Inspector-General H. J. Domville, C.B., M.D., has been awarded to Inspector-General Sir John Watt, Reid, M.D., K.C.B., Hon. Physician to the Queen from July 10th, 1888.

The following appointments have been made:—Surgeon John D. Hughes, to the *Royal Adelaide*, additional (dated July 26st, 1888); Surgeon Maurice M. R. Mackenzie, to be Surgeon and Agent at Killybegs and Tribane; and Fleet Surgeon Chas. A. Lees, M.D., to the *President*, additional, temporarily (dated Aug. 1st, 1888).

YEOMANRY CAVALRY.—Dorset (Queen's Own): William Rendall, Gent., to be Acting Surgeon (dated July 28th, 1888).

ARTILLERY VOLUNTEER CORPS.—1st Volunteer (Devonshire) Brigade, Western Division, Royal Artillery: Thomas

Henry Tracy Mudge, Gent., to be Acting Surgeon (dated July 28th, 1888); Thomas Finlayson Dewar, M.B., to be Acting Surgeon (dated July 28th, 1888).—1st Worcester: Lieutenant J. T. Thomas, to be Surgeon (dated July 28th, 1888).

ROYAL ENGINEER VOLUNTEER CORPS.—1st Lancashire: Robert Eccles, M.D., to be Acting Surgeon (dated July 28th, 1888).

RIFLE VOLUNTEERS. — 3rd Volunteer Battalion, the Hampshire Regiment: Andrew Knox Rickards, Gent., to be Acting Surgeon (dated July 28th, 1888).—5th (West) Middlesex: Surgeon T. W. Nunn, resigns his commission; also is granted the honorary rank of Surgeon-Major, and is permitted to continue to wear the uniform of the Corps on his retirement (dated July 28th, 1888).—13th Middlesex (Queen's Westminster): Sir Morell Mackenzie, Knt., M.D., to be Surgeon (dated July 28th, 1888).—1st Volunteer Battalion, the Royal Warwickshire Regiment: George Jordan Lloyd, M.B., to be Acting Surgeon (dated July 28th, 1888).

Correspondence.

"Audi alteram partem."

LONGEVITY AND ALCOHOL.

To the Editors of THE LANCET.

SIRS,—I have to thank you for your courtesy in drawing my attention to an article in to-day's LANCET upon the "Habits of Intemperance" Report of the Collective Investigation Committee, lately issued, in the *British Medical Journal* (June 23rd, 1888). The article commences: "The total abstainers have been thrown into commotion by the publication of certain statistics ..... purporting to show that abstainers, after all, do not live so long as other people"; and further on I find: "it can scarcely be credited that the decidedly intemperate live longer than teetotallers, and that free drinkers and careless drinkers live much longer. Such conclusions raise the strongest suspicion of the value of the statistics." I have read these sentences with unbounded astonishment; and, as the matter is one of some importance, I trust that you will accord an equal degree of publicity to my plain statement, which you can readily verify, that the Report in question "purports to show" nothing of the kind, and that no such "conclusions" are to be found in its pages. The writer of the article has correctly quoted the Table (IX.) showing the average ages attained in the different classes, but has omitted to say that nearly a column of the Report (p. 1312) is devoted to pointing out a fallacy involved in the *primâ-facie* interpretation of the figures contained in this table, that two extra tables (X. and XI.) are inserted especially to support the explanation there given, and that the Summary of results on page 1316 expressly declines to draw any conclusion from these figures as to the relative longevity of total abstainers. It was open to the writer of the article, if he chose, to deny the fallacy, to dispute the explanation, and to place what interpretation he fancied on the figures; it was not open to him, as a candid critic, to ascribe to the Report a deduction which it unequivocally disclaims the warrant for forming. With your permission I will quote the "conclusions" regarding longevity as they actually stand (p. 1316):—

"1. That habitual indulgence in alcoholic liquors beyond the most moderate amounts has a distinct tendency to shorten life, the average shortening being roughly proportional to the degree of indulgence.

"2. That of men who have passed the age of twenty-five, the strictly temperate, on the average, live at least ten years longer than those who become decidedly intemperate. (*We have not in these returns the means of coming to any conclusion as to the relative duration of life of total abstainers and habitually temperate drinkers of alcoholic liquors.*)"

How such a singular misrepresentation found its way into an article intended for insertion in THE LANCET, I can scarcely comprehend; but the occurrence in the course of the article of a passage which, "purporting" to be a quotation from the Report, contains no less than fourteen verbal inaccuracies in the space of seven lines, sufficiently assures me that I need look to no other cause than the obvious carelessness of the writer. I have written this letter with much reluctance; but THE LANCET is read by so wide a circle, not only of the profession, but of the educated public also, that I should not be doing right in leaving the statements to which I have alluded without formal contradiction.

I am, Sirs, yours truly,

ISAMBARD OWEN.

Hertford-street, Mayfair, W., July 28th, 1888.

*** We are glad to have called forth Dr. Isambard Owen's letter. If he will read our article again he will see that it bears proof of having been written, not to discuss in detail the value of the different tables and data in his report, but to deal with the impression—we might almost say the shock—given to abstainers by his Table IX. We were writing with a paper before us by Dr. Norman Kerr on the statistics collected by the Collective Investigation Committee; and the quotation, of the inaccuracy of which he complains, is taken almost *verbatim* from Dr. Kerr's paper (in the *Alliance* newspaper, July 21st). And it does not differ materially from the definition of careless drinkers in Class C of the report. We are glad to find Dr. Owen's conclusions regarding longevity show so clearly the advantages of temperance, but we are still somewhat surprised to find that in a table which he admits is correctly quoted by the writer in our pages the "decidedly intemperate" live longer than abstainers. It will take a great many statistics of unimpeachable quality to establish this to our satisfaction, though we are not advocates of extreme doctrines on this subject.—ED. L.

DIARRHŒA.

To the Editors of THE LANCET.

SIRS,—In your short article on Saturday last commenting upon the late "unseasonable weather and the public health," the unusually low mortality from summer diarrhœa is pointed out, and you go on to say that "summer diarrhœa is almost exclusively an infantile disease." With your permission I would like to point out that this is a fallacy which many writers on the subject have fallen into. I have studied this subject very fully the last three years, and, at all events so far as Leicester is concerned—and this town suffers probably more than any other in England from the disease under consideration,—it is by no means exclusively, or even chiefly, an infantile disorder. The *mortality* is principally infantile, but accurate observations show that by *far the larger proportion* of sufferers are patients of more mature years. I am, Sirs, yours faithfully,

Leicester, July 31st, 1888. HENRY TOMKINS, M.O.H.

NOTIFICATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—In a leading article in the current number of THE LANCET it is said that I state "the medical practitioner has more time to notify than the householder," whereas in my letter I stated my reasons for thinking the medical practitioner was the best person to notify, and amongst these reasons I do not mention the word "time" or in any way suggest that the medical practitioner has more time than the householder. I do, however, believe that he has more conveniences for notifying than many householders, and arrive at that conclusion partly because I have been in general practice and know how difficult it is in many houses to obtain pen, ink, and paper. I regret that my letter was construed by anyone into showing that medical officers of health and their brethren in general practice live in different atmospheres; nothing was further from my intention, and on re-reading the letter I fail to see why that construction was put upon it.—I am, Sirs, yours obediently,

Portsmouth, July 27th, 1888. R. H. MUMBY.

FIRST AID.—Last week the Right Honourable J. P. Hibbert distributed the medallions and certificates awarded in the third examination of classes formed at the Royal Albert Asylum, Lancaster, in connexion with the St. John Ambulance Association. Of fifty-five men and women who had attended the classes forty-six had passed the examination.

MANCHESTER.

(From our own Correspondent.)

OWENS COLLEGE AND THE CHAIR OF SURGERY.

As already announced in THE LANCET, the Council of Owens College have appointed Mr. Arthur W. Hare as Professor of Surgery in place of Professor Lund, resigned. Probably no college appointment, certainly none in the medical department, has ever given rise to so much controversy, not to say criticism and discontent, among those most interested (the students of that department) as this has done, and it is but fair to add that this adverse criticism is not confined to present students, but includes former ones, and also a very large proportion of the medical profession of the district.

THE ROYAL INFIRMARY.

At the annual meeting, held last week, it was stated that upwards of 41,000 patients had been treated at the Infirmary and its two branches, the Convalescent and the Fever Hospitals, during the past twelve months, at a total cost of £30,507. Of these, upwards of 8000 were in-patients and the remainder out- and home patients. It was also stated that the number of out-patients during the last few years had been largely on the increase, and it was suggested that many of these ought to be independent of gratuitous medical attendance. A few years since, a rigid inquiry was instituted into the means of all applicants, and those earning more than a certain weekly sum were referred to the Provident Dispensary. The question of hospital abuse, here as elsewhere, is one that is not yet satisfactorily solved or against which an efficient remedy has been provided. Of the 8000 in-patients more than 2000 were received at the Fever Hospital, where large expenditure has been going on in providing increased accommodation for patients and staff, though upon what principle this large expenditure has been incurred it is difficult to say, seeing that the providing for the isolation of infectious disease is in nowise part of the duty of a charity like the infirmary, but should devolve upon the health authorities, from whom the patients are received. It has been hinted that the income derived from the payments received are so large that a good return is made upon the capital thus invested—and that all excess of income over expenditure helps the common fund of the institution. At the monthly meeting of the Infirmary Board a curious application was made by the Manchester Trades Council. It is, and has been, for many long years, the custom of the infirmary to issue to all subscribers "recommends," by means of which they can send patients for treatment to the infirmary. On this "recommend" it is stated that the subscriber who signs it has inquired into the circumstances of the applicant, and has found him to be "a proper object of charity," &c.; and these words the Trades Council asked to have expunged as apt to give offence to patients. The request was not complied with. A more sensible suggestion would have been to abolish the "recommend" system altogether, and the matter has at times been discussed; but hitherto the Board have not seen their way to discontinue this long-standing custom.

SERIOUS OUTBREAK OF SMALL-POX.

We have heard lately but little of small-pox, and a sudden and serious outbreak on Friday last in an educational establishment caused some little surprise. Into a Roman Catholic Industrial School a child had been lately admitted from Yorkshire, suffering, apparently, from a mild and unsuspected attack of the disease, and has been mixing freely with the other inmates, with the result of infecting about seventy of these, all of whom were removed to the Small-pox Hospital during Friday and Saturday, and the whole sanitary staff of the Corporation set to carry out prompt and efficient disinfection, &c. This outbreak is probably unique in point of numbers admitted to hospital in one day from one place, and speaks well for the organisation now in force for the rapid isolation of infectious cases.

PRISON CELLS.

Apropos of your remarks in the last issue of THE LANCET on the accommodation provided for prisoners awaiting trial in police and other courts, it is not creditable to Manchester that its provision in this respect is about as bad as it well can be, and has been the subject of remark in the House of Commons. The inspector appointed by the Government to report on the cells throughout the country says of those in Manchester that "the whole scene reminded one of the barred cages at the Zoological Gardens occupied by the lions and tigers—with this difference, that the wild animals were better off."

POISONED BY A BROOK.

The statement has been made more than once that cases of drowning in some of our local streams and rivers would more properly be termed "deaths by poisoning" as a closer approach to truth. A recent coroner's inquest on the body of a boy fourteen years old has served to confirm this. The boy in question went to the help of another lad who had slipped into a brook on the north side of the city, when he was overcome by the fumes and offensive gases arising therefrom. Other persons who ran to assist were also overpowered by them, and a man and a woman were rendered unconscious for some time simply from breathing the offensive emanations. Surely it is high time that the powers for the prevention of pollution of rivers were put in force in this district.

HORSEFLESH AS MEAT.

From time to time Manchester is made aware that horseflesh is undoubtedly consumed by some of us, possibly as "prime ribs" or "rump steak," for no one can ever find any labelled "horse beef" at any of the butchers. Two cases lately before the court were there only because the flesh was diseased and unfit for human food, and then the fact came out that it was the flesh of a horse and not of an ox that had been got ready for sale as beef. A deputation from Manchester had an interview with the President of the Board of Trade (Sir Michael Hicks Beach) on Saturday last asking for some legislative action to prevent this fraud going on, and also to check the sale of adulterated lard, which has attained enormous proportions. Sir Michael, however, appeared to be of opinion that ample powers already existed under the present law, if local authorities would but do their duty efficiently and properly enforce the same.

Manchester, Aug. 1st.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

SUNDERLAND.

THE medical officer of health, Mr. A. E. Harris, states that the death-rate of the borough for the past fortnight represented a mortality of 16·6 per 1000. The average death-rate for the corresponding period in ten years was 24·5 per 1000. As regards the new infectious diseases hospital, the borough surveyor said he could not report satisfactorily, for, in spite of wind and weather, and other obstacles, he felt bound to state that more energetic service might have been rendered. The need for the completion of the new hospital will be apparent from what was stated relative to a case of diphtheria at the last meeting of the health committee. A case of this disease was found in a sailor, and he was removed to the infirmary; afterwards he was sent to the workhouse hospital, where he died. All this moving could not be done in a disease of this highly infectious nature without peril to the patient and risk to others. A bridge-leaping mania appears to have set in at Sunderland this summer. The bridge is about 100 feet high in the full tide. Two young men leaped off last May, and escaped, but the last one, on Sunday night last, and the preceding one, about a month ago, have paid the penalty of their rashness by death.

AMBULANCE WORK IN THE NORTH.

The certificates to the successful candidates in the police ambulance class of Newcastle were presented last week in the presence of the Mayor and other officials. The Sheriff hoped that the men would receive next year more than certificates, and expressed his willingness, if the Chief Constable would report the case to him, to give the men who had performed the most signal service in ambulance work a gold medal. In the county of Durham Drs. Hood and Wild, of Tow Law, have received testimonials for their successful instruction of sixty-six students in first aid; while Dr. Brunskill of Kelloe has received a presentation

of a silver inkstand from a large class he has instructed at the Kelloe Colliery.

HOSPITAL SUNK IN THE TYNE OFF JARROW.

Last week one of the Tyne Port Sanitary Authority's hospitals sank off Jarrow. The vessel was the central one of three, and was kept for cholera cases, but has been scarcely ever occupied, and there was no one on board when she went down. Some alteration in the ballast was the cause of her sinking. She has been since raised and beached.

PROVIDENT DISPENSARIES IN THE NORTH.

At a late conference at Gilsland, Mr. Thos. Baron, of Kendal, read an interesting paper on Provident Dispensaries, in which he gave a history of the Kendal Provident Dispensary, which, he stated, was begun with 425 members in 1883, this number representing 1600 persons in families. The payments were as follows: Parents and all members of the family under fourteen years of age, 6*d.* per month; single persons, eighteen years of age and over, 3*d.* per month; young persons over fourteen and under eighteen years of age, 2*d.* per month. In addition every time a person visited a doctor or *vice versâ* an extra fee of 6*d.* was charged, this fee being paid to the secretary in addition to the usual fortnightly subscription. Surgical operations were now included. The working expenses of the institution amounted last year to £30 15*s.* 8*d.* In Kendal they were fortunate as to funds. A free dispensary formerly existed in the town which had an endowment, but for about fifty years this institution had ceased to exist as such. The interest from this endowment had been given by the trustees to various charitable objects, but when the Provident Dispensary started, it was felt that it had a prior claim, and £45 a year had been granted from this fund ever since. In addition to this sum their honorary subscriptions amounted to £54 5*s.*, so that last year £99 5*s.* was added to the payments of ordinary members. The total number of members on their books in December last was 641, representing a total of probably nearly 2500 individuals, and the population of Kendal was about 14,000. The number of visits paid, either by or to the medical officers in 1887, amounted to 7536, and for each of these visits the medical men received 1*s.* In 1886 they received 11¾*d.* per visit; in 1884 9½*d.* Visits made by doctors to patients after 10 o'clock at night were special, 1*s.* being paid by the patient, and 4*s.* additional being taken out of the Central fund. Mr. Baron believed that the institution at Kendal was doing a good work, and might, perhaps, stimulate others, for it had been truly said that "no institutions were more truly charitable than provident dispensaries, which helped the poor to help themselves, and called out and fostered one of the highest instincts of human nature—viz., the desire of independence."

At Alnwick the half-yearly meeting of the Provident Dispensary has been held, and the accounts show a balance, after the medical staff has been paid, of £70 12*s.* for the half-year.

Newcastle-on-Tyne, July 31st.

DUBLIN.

(*From our own Correspondent.*)

THE MEATH HOSPITAL, DUBLIN.

AT a recent meeting of the Standing Committee of this Hospital, the following resolution, proposed by Sir G. B. Owens, M.D., was passed unanimously:—"That this committee desire to place on record their sincere regret at the loss which this institution has sustained by being deprived of the most valuable services of surgeon James H. Wharton, consequent on his resigning his place on its medical staff; and they most cordially unite in wishing him long life and every felicity in the enjoyment of his well-earned repose."

MEDICAL SCHOOLS AMALGAMATION SCHEME.

The committee appointed by the Council and the delegates from the three schools, it is expected, will complete the details of the proposed scheme to-day (Tuesday), and their report will be considered at a special meeting of the Council, to be held probably on Friday. Considerable alterations have been made in the original scheme, making it more workable, and doing away to a great extent with the objections which have been urged against it. Probably it will be adopted, with some slight alterations, by the Council, and, if so, will come into operation with very little delay if approved by the Fellows of the College.

BOARD OF SUPERINTENDENCE OF DUBLIN HOSPITALS: ANNUAL REPORT.

The nine hospitals in Dublin which receive aid from Parliament include three general hospitals, five special, and a hospital for incurables. The patients admitted to these institutions during the year numbered 9875, making the total under treatment 10,635, of whom 9376 were discharged cured or relieved, and 512 died. The total average daily number of beds occupied was 744·57, and the mortality was 5·39 per cent. on those treated to a termination. As regards the Lock Hospital, with a view of affording clinical instruction, it was suggested to admit medical students to the practice of the hospital under certain restrictions; but this arrangement has not been carried out, as the governors are of opinion that to admit students to the wards would have the effect of deterring women from entering the hospital. The board recommend the construction of a disinfecting hot-air chamber for the House of Industry Hospitals, and suggest that all infected articles of woollen clothing, blankets, or bedding, if not burned at once, should be submitted to this heat process They also state that the condition of the baths and some of the lavatories is capable of improvement. The management of the Meath Hospital reflects, it is said, great credit on the committee, who evidently have given careful and intelligent consideration to hospital arrangements. Some of the wards, however, were overcrowded, but this will be obviated by the increased accommodation which the new building in course of construction will afford. The post-mortem room in the Rotundo Lying-in Hospital is too small, and the board are of opinion that this important department of a hospital should be large and well ventilated, and have ample means of renewing the atmosphere, otherwise attendants on autopsies are likely from emanations to convey infection, which is undoubtedly a frequent and unsuspected cause of the propagation of disease. The mortality of the labour patients was ·38 per cent., which compares very favourably with the return from a similar institution, the Coombe Hospital, where the mortality was 2·05 per cent. Improved accommodation having been found necessary at the Royal Hospital for Incurables for cancer and consumptive patients, a new structure has been added called the "Victoria Jubilee Wing," and this addition must prove of great benefit to the class of cases admitted to the institution. Of the nine institutions receiving Government aid, the average annual cost per bed for maintenance and for establishment charges was highest in Steevens's Hospital (£61 6*s.* 9½*d.*), and lowest in the Royal Hospital for Incurables (£28 8*s.* 10*d.*). The Government grant of £15,722 15*s.* 9*d.* is very unequally distributed. For example the House of Industry Hospitals obtain £7472 15*s.* 9*d.*; the Lock Hospital, £2600; Cork-street Fever Hospital, £2500; Steevens's, £1300; Rotundo, £700; Meath, £600; Incurables, £250; Coombe, £200; and St. Mark's Ophthalmic Hospital, £100.

THE INQUEST ON THE LATE MR. MANDEVILLE.

The coroner's jury have brought in a verdict that the deceased died of cellular inflammation of the throat brought about by the unjustifiable treatment which it was alleged he received in Tullamore Gaol. They also added a condemnation of the aspersions of Dr. Barr on the medical practitioners who attended Mr. Mandeville.[1]

At the recent Second Professional Conjoint Examination between the Colleges of Surgeons and Physicians, twenty-eight only passed, out of fifty-eight candidates who presented themselves.

[1] The matter is referred to in another part of our present impression.—ED. L.

HAMILTON ASSOCIATION.—From the third annual report of this Association, which has just been issued, it appears that a great increase has taken place during the past year in the number of private engagements of nurses, 138 having been completed during the year. Nurses have also been supplied to St. George's, the Seamen's, and Guy's Hospitals, and the Committee of the Association are prepared to entertain applications from other hospitals and institutions desirous of obtaining the services of trained male nurses. The total receipts amounted to £1817, and the expenditure left in hand a balance of £115.

PARIS.

(From our own Correspondent.)

THE CONGRESS ON TUBERCULOSIS.

As announced in THE LANCET, the Congress for the study of tuberculosis as it occurs in man and in animals was opened at 9 A.M. on Wednesday, the 25th ult., at the Faculty of Medicine. The first thing to be done was to organise the committee, of which M. Chauveau of Lyons, Professor of Veterinary Medicine, was elected president, and Professor Villemin of Val-de-Grâce vice-president. The following are the names of the members of the committee:—MM. Butel (veterinary surgeon at Meaux, the originator of the Congress), Leblanc, Nocard (director of the Veterinary School of Alfort), Rossignol (veterinary surgeon at Melun); Cornil, Grancher, Lannelongue, Verneuil (Professors of the Faculty of Medicine of Paris); H. Petit (general secretary). The questions proposed by the committee were the following: The dangers to which a person is exposed by the use of the flesh and milk of tuberculous animals; the human races and the animal species considered in regard to their susceptibility to tuberculosis; the channels for the introduction and the propagation of the virus in the economy; the early diagnosis of the malady in man and in animals; heredity, contagion, hygienic measures, and the various methods of treatment. M. Chauveau then detailed the programme of the Congress. He pointed out in a very eloquent discourse the importance of the work of the Congress, the large part that French science has had in elucidating the subject of tuberculosis, and referred particularly to the value of the researches of Professor Villemin, who was the first to show that tuberculosis was a virulent, inoculable, and contagious malady. M. Verneuil said it was a matter of congratulation to witness the presence at the meeting of veterinarians and medical men from all parts of the world who are, in common, engaged in researches in which the knowledge of the one body completes that of the other. M. Cornil communicated some interesting experiments on contagion of tuberculosis through the mucous membranes. The cultures of the tubercle bacillus introduced into the intestine penetrate very quickly into the mucous parietes. In introducing into the œsophagus of guinea-pigs a few drops of tuberculous cultures, he always observed at the end of four days submucous tuberculous lesions, with rapid generalisation, without lesion of the epithelium, and bacilli are found in the mesenteric glands. In a second series he introduced the same culture into the vagina of female guinea-pigs, and he observed a rapid uterine tuberculosis. It may, therefore, be admitted that tuberculous inoculation is possible in sexual intercourse when bacilli are introduced. M. Nocard read a paper on the dangers to which one is exposed by the use of the flesh and milk of tuberculous animals. It would appear to result, from his very ingenious experiments, that the muscles destroy or digest, as expressed by M. Nocard, the comma bacilli in such a way that the meat of animals affected with generalised tuberculosis presents but very little danger. Thus, four cats ate with impunity the flesh of a tuberculous cow, whilst a fifth cat that had eaten a lymphatic gland of the same cow succumbed in a very short time to experimental tuberculosis. M. Nocard, therefore, thinks that it is not necessary to exaggerate the precautions, or to hold Koch's bacillus in great dread, adding that one can eat without fear the flesh of tuberculous animals the tubercles of which are limited to the viscera and to the different lymphatics; even that of animals the tuberculosis of which is generalised would be but exceptionally to be dreaded. As regards the milk, this should always be looked upon with some suspicion, and it should never be given to children without its having been previously boiled. Goats' milk may, perhaps, form an exception to this rule, as a tuberculous goat is looked upon as a pathological curiosity. At the meeting on the 26th, the question as to the dangers to which one is exposed by the use of the flesh and milk of tuberculous animals, and the means to prevent them, was discussed. A large number of the members took part in the debate. All acknowledged that the use of the meat, and particularly the milk of tuberculous animals, should be regarded as dangerous. MM. Arloing, Galtier, Butel, Rossignol, and Aureggio would vote for the complete seizure of the meat of all tuberculous animals, instead of the partial seizure which M. Nocard judges sufficient. The foreign veterinarians present were all partisans of the entire seizure. M. Jorissenne claimed for the Belgian veterinarians the honour of having raised the question of the danger of the use of milk. He stated that of every 100 cows four are tuberculous. In one shed of twenty cows the milk was found to contain a prodigious number of bacilli furnished by tuberculous teats; he therefore insists upon the most radical measures. Mr. Robinson of Greenock does not believe in the distinction that is sought to be established between localised and generalised tuberculosis. Considering the danger shown by statistics, and the frightful proportion of tuberculous subjects among the human species, Mr. Robinson proposed that the most energetic means of preservation should be employed. He said that he came on purpose from Scotland to support these radical measures. All suspected meat should be seized. M. Dionis des Carrières stated that to the present day we have not had the demonstration of a single case of tuberculosis determined by the use of meat taken from a tuberculous animal. He asked why a substance only suspected should be rejected from the list of aliments. He suggested that, before adopting such radical measures, a series of experiments should be duly performed. With this view he proposed that the next criminal that may be condemned to death should be subjected during fifty days to a diet of tuberculous meat, whereby the relation of cause and effect could be traced. M. Peuch of Toulouse showed the noxious action of the milk and the meat of tuberculous cows. The Congress voted, in principle, that the flesh of a tuberculous animal should be seized in totality. Professor Lannelongue made a very interesting communication on tuberculous abscess of the liver. He said that these abscesses had not been indicated by any person before. They would appear to be met with only in children. They are found in the hepatic parenchyma, where they excavate a cavity analogous to the tuberculous cavities of the lungs. They give rise to no characteristic symptom whatever, but are often complicated with perihepatic abscesses. When these latter are diagnosed the surgeon would be justified in suspecting profound abscess. M. Hartenstein read a note on bovine tuberculosis in its relations to verminous phthisis (*phthisie vermineuse*). The author often found in the lungs of oxen large pouches filled with caseous matter, closely resembling tuberculous masses. He observed that it is very important to know that these appearances are deceiving, as one has only to deal with dead parasites, and that the flesh of animals which contain them presents no danger. M. Solles of Bordeaux made a communication of some importance. The subject treated of was a tuberculous culture of the human lung. The author found in the sputa and in the blood of phthisical subjects a micro-organism which is not the bacillus of Koch. It is a microbe very nearly approaching, if not identical with, the micrococcus of erysipelas, and which determined in the rabbit a sort of chronic septicæmia, with extreme emaciation, reducing the original weight of the animal to one-half. M. Solles attributes to this new microbe phenomena more particularly septic of tuberculosis. M. Kalindero, Professor of the Faculty of Bucharest, read a note on tuberculous meningitis in the adult. M. Chambrelent made a communication on tuberculous meningitis during pregnancy, and proposed, in certain cases, to induce premature labour. M. Degive of Brussels proposed a very simple means, employed in Belgium, to avoid all transmission of tuberculosis from a vaccine animal. The heifers which furnish the vaccine lymph are opened before the lymph is utilised, and this is used only when the animal is recognised as being healthy. M. Chauveau observed that this same procedure is in use in Lyons, and in a great many vaccination establishments in France. He considers this the most radical procedure. But tuberculosis is so rarely transmissible by superficial inoculation of the skin, and the vaccine pustules in tuberculous animals are so seldom charged with tuberculous matter, that it would be wrong to fear inoculation of tuberculosis by vaccination, even when the precaution proposed by M. Degive is used.

DEATH OF DR. FIEUZAL.

Dr. Fieuzal died on the 28th ult., after a long illness, at the age of fifty-two years. Although Dr. Fieuzal had not distinguished himself as an ophthalmologist, yet through the influence of his friend Gambetta he was appointed oculist to the Quinze-Vingts, an asylum for the reception

of adults, where a clinic for the diseases of the eye was created on purpose for him, and where, however, he proved himself worthy of the position in every way. He was a skilful operator, and published several works on ophthalmology, which testified to his competency in this special branch.

Paris, July 31st.

ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council held on Thursday, August 2nd, the minutes of the Quarterly Council of the 12th ult. were read and confirmed.

The following resolution, dated the 20th ult., received from the Court of Examiners, was read, and referred to the Committee of Management for consideration and report:—"That it be represented to the Council of the College that the arrangements for the July Examinations have been unsatisfactory to the Court of Examiners, who would urge that in the interests of the candidates, as well as of the examiners, every effort should be made by the Committee of Management to secure an uninterrupted sequence of days in future."

The eleventh report of the committee on the extension of the College premises was presented, in which the committee recommended the Council to authorise the building of a house for the conservator at an estimated cost of £3410.

(We would remind our readers that the Museum will be closed during the month of September as usual.)

A letter of the 30th ultimo, from Sir Henry Pitman, was read, enclosing a copy of the following resolution, approved and adopted at a meeting of the Royal College of Physicians on the 26th ultimo: "That a committee be appointed, consisting of seven nominated by this College and seven nominated by the Royal College of Surgeons, to report to the two Colleges as to the educational or scientific uses to which the building on the Embankment, now in course of erection by the Colleges, can be best applied, and generally as to its maintenance and management."

A similar resolution was adopted at the present meeting, and the following were elected on the part of the Council: The President, two Vice-Presidents, and Messrs. Marshall, Power, Bryant, and Hill.

A letter of the 27th ultimo from Mr. Wilde was read, forwarding the Supplemental Charter under the Great Seal, with a print showing all the alterations made by the authorities of the Privy Council and the Home Office.

A letter of the 13th ult. from the registrar of the General Medical Council was also read, forwarding, by direction of the President, a copy of the reports of the inspectors, appointed by the Medical Council, on certain final examinations in medicine, surgery, and midwifery held by the Examining Board in England, and requesting to be favoured with any remaks thereon which the Council of the College may have to make. This was referred to the Committee of Management to consider and report thereon to the two colleges.

It was agreed that the annual meeting of Fellows and Members be held on Thursday, Nov. 1st, at 3 o'clock P.M., and that the notices respecting it and the contents of the report from the Council be the same as laid down in the minutes of Council of Aug. 6th, 1885, and of April 12th, 1888.

Obituary.

LUDWIG JULIUS BUDGE.

GERMANY has produced few sounder or more suggestive workers in the field of physiology than Professor Budge, whose death on the 14th inst. at Greifswald, in his seventy-seventh year, we announced in our last impression.

His medical studies began in 1828, and were prosecuted with diligence and success at the Universities of Marburg, Würzburg, and Berlin till 1833. Having obtained his diploma as a duly qualified physician, he settled in practice at Wetzlar, his native town, and shortly afterwards removed to Altenkirchen, near Coblenz. The routine life, however, was not to his taste, the abridged opportunities of scientific research still less so. Accordingly, in 1842 he gave up practice, and resumed with fresh ardour his anatomical and physiological studies, this time at the University of Bonn, where he became attached to the Medical Faculty, and acted as teacher in anatomy and physiology, to which subjects he added that of zoology. In 1847 he was appointed Extraordinary Professor, in 1855 he was promoted as Professor in Ordinary, and in the following year, such was the reputation he had acquired as an investigator and teacher, he was called to fill the posts of Ordinary Professor and Director of the Anatomical Institute in the University of Greifswald. There he remained till the hour of his death; there, too, he steadily contributed to the high position which Greifswald, as a medical school, has attained among her German sisters. "Old Budge," as the students came affectionately to call him, was very popular and efficient as a lecturer, while unwearedly painstaking in the dissecting-room and laboratory. An accomplished "all-round" physiologist, he bestowed particular attention on the nervous system, and enriched that department with several important discoveries. Of these perhaps the most striking—certainly that which brought him most fame in foreign schools—was his demonstration that the sympathetic nerve originates, not in the peripheral system of ganglia, as had previously been taught, but in the spinal cord. This discovery cleared up the influence of the spinal marrow on nutrition, and formed a starting-point for the explanation of numerous physiological and pathological phenomena.

His text-books were, and still are, highly popular throughout Germany, his "Handbuch der Physiologie" (first edition, 1848) marking an era in the scientific exposition of the subject, and retaining its wide popularity in Germany down to the present day by numerous revised reissues. For a less advanced grade of students he prepared his "Compendium der Physiologie," which, as the "Kleine Budge" (the "little Budge"), has proved invaluable to successive contingents of aspirants, particularly in Germany, to professional diploma or licence.

Ludwig Budge died at his post, leaving the University where he worked in the very front rank of German medical schools, and bequeathing to his colleagues and his pupils an example of personal worth and official distinction not easily paralleled.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having passed the necessary Examinations and having conformed to the bye-laws, were admitted Licentiates of the College:—

Abbott, Francis Charles, St. Thomas's Hospital.
Acton, Charles James, Univ. College and Liverpool.
Appleton, James Enderby, Charing-cross Hospital.
*Banerji, Umadas, Calcutta.
*Barnett, John Edward Sewell, Charing-cross Hospital.
Belcher, Henry Edward, University College.
*Blachford, James Vincent, Guy's Hospital.
*Blake, William Henry, University College.
*Bodilly, Reginald Thomas Harker, King's College.
Brownlow, George Percy, St. Bartholomew's Hospital.
Bryett, Lewis Thomas Fraser, King's College.
*Buchanan, Robert James McLean, Liverpool.
*Bullock, Charles Penry, St. Bartholomew's Hospital.
Burchell, Ernest, London Hospital.
*Cameron, Robert Watson, Manchester.
*Capron, Henri John, Bristol.
Carpenter, Percy Tranto, St. Mary's Hospital.
Carter, Weldon Cragg, University College.
*Cockerton, Herbert, St. George's Hospital.
Colborne, George, Middlesex Hospital.
Davey, Samuel, London Hospital.
Davis, Cyril Stephen, Guy's Hospital.
Davis, Harry, University College.
Duer, Charles, University College.
Duncan, Percy James, Charing-cross Hospital.
Dyer, John Edward, University College.
*Evans, George Edward Alfred, St. Bartholomew's Hospital.
Falkner, Edgar Ashley, Middlesex Hospital.
*Field, Edgar Alfred, Edinburgh.
Freer, Gerald Dudley, St. Bartholomew's Hospital.
Fryer, George Ernest, Manchester.
Gill, Joseph William, Middlesex Hospital.
Goldney, Arthur George Nelson, Charing-cross Hospital.
Goodfellow, Thomas Ashton, Manchester.
Gordon, William, Cambridge and University Colleges.
*Greeves, Thomas Neville, King's College.
Grey, John Temperley, Bristol.
*Harris, George James, Westminster Hospital.
Harris, Sampson George Victor, Charing-cross Hospital.

* Candidates who have not presented themselves under the Regulations of the Examining Board

Haviland, Frank Papillon, St. George's Hospital.
*Heale, Alfred Lawson, Westminster Hospital.
Higgins, Hubert, St. George's Hospital.
Hill, Robert, Middlesex Hospital.
Hosking, John Edward Francis, Guy's Hospital.
Housman, Basil Williams, Birmingham.
Hughes, Samuel Henry, St. Bartholomew's Hospital.
Huxley, Henry, St. Bartholomew's Hospital.
*Laing, Alfred William, St. Bartholomew's Hospital.
Langdale, Henry, Manchester.
Langridge, Frank Washington, Guy's Hospital.
*Leman, Thomas Curtis, Bristol.
Lockett, John Arthur Pope, London Hospital.
Maclure, Herbert William, St. Bartholomew's Hospital.
*Martin, Charles Lister, King's College.
Midelton, William John, St. Bartholomew's Hospital.
*Miles, Charles Henry, Univ. College and Middlesex Hospital.
Murray, George Redmayne, Cambr. and University College.
O'Brien, Philip Kennedy, University College.
Ogle, John Gilbert, St. Bartholomew's Hospital.
Oldham, Benjamin Curwen, St. Bartholomew's Hospital.
Parkin, Alfred, Guy's Hospital.
Pearson, James, University College.
Pennell, George Herbert, Guy's Hospital.
Pierce, Bedford, St. Bartholomew's Hospital.
Plant, James Robert, Westminster Hospital.
Platt, John Edward, Manchester.
Powell, William, Westminster Hospital.
Poulter, Arthur Reginald, St. Bartholomew's.
*Pritchard, Trevor John, Edinburgh.
Rudd, William Arthur, London Hospital.
*Skinner, George Henry, Bristol.
Skyrme, Henry Edward, London Hospital.
*Stephens, James William, St. Bartholomew's Hospital.
Summerskill, William, Leeds.
*Sutton, James Bryan, Charing-cross Hospital.
Sylvester, Harold Augustus, St. Bartholomew's Hospital.
Tate, Walter William Hunt, University College.
*Tench, Montague, Middlesex Hospital.
*Tresidder, William Elliot, Guy's Hospital.
Turney, Horace George, St. Thomas's Hospital.
Vallancey, Aymer d'Estampes de, St. Thomas's Hospital.
*Verdon, Francis, King's College.
Wade, Charles, University College.
Watson, Arthur Edmonstone, Middlesex Hospital.
White, Gilbert Benjamin Mower, University College.
*Wild, Charles Henry, University College.
Wilkinson, Edmund, University College.
Willoughby, William George, St. Bartholomew's Hospital.
Wills, Ernest, University College.
Wilson, Charles, London Hospital.
*Woodhams, Sidney, Guy's Hospital.
White, Edgar Ramsay, King's College.
Wright, Dudley D'Auvergne, University College.
Wright, Joseph Farrell, Manchester.
*Ziemann, Herrmann Peter, Charing-cross Hospital.

* Candidates who have not presented themselves under the Regulations of the Examining Board.

VICTORIA UNIVERSITY: FACULTY OF MEDICINE.—The following have passed the examinations specified:—

PRELIMINARY EXAMINATION IN SCIENCE.

First Division.	*Second Division.*
F. J. H. Coutts, Owens College.	J. B. Carter, Owens College.
J. L. B. Dixon, Owens College.	T. S. Collin, Owens College.
A. J. Edwards, Owens College.	J. De Freitas, Owens College.
J. Hartley, Owens College.	F. S. Fletcher, Owens College.
D. Hunter, Owens College.	C. C. Garfit, Owens College.
C. R. Jones, University College.	J. Healey, Owens College.
C. E. M. Lowe, Owens College.	J. Jones, Owens College.
E. C. McCarthy, Owens College.	A. Murgatroyd, Owens College.
C. R. Marshall, Owens College.	J. P. Nixon, University College.
F. C. Scotson, Owens College.	A. J. Partridge, University College.
J. H. Taylor, Owens College.	W. C. Rigby, Owens College.
R. J. Turner, Owens College.	G. M. Y. Whittingham, Owens Coll.
F. J. Woods, University College.	W. A. Wilkinson, Owens College.

INTERMEDIATE M.B. AND CH.B. EXAMINATION.

Second Division.	
E. M. Brockbank, Owens College.	W. J. Howarth, Owens College.
G. F. Chadwick, Owens College.	J. M. H. Martin, University Coll.
S. H. Fairrie, University College.	S. G. Moore, University College.
A. Greenhalgh, Owens College.	L. Youatt, Owens College.

FINAL M.B. AND CH.B. EXAMINATION. (Part 1.)

G. F. Edwards, Owens College.	T. Porter, Owens College.
J. W. Ellis, University College.	H. Ramsden, Owens College.
A. E. Giles, Owens College.	J. Simcock, Owens College.
W. J. Kerr, Owens College.	J. W. Unsworth, Owens College.
W. Nuttall, Owens College.	

FINAL M.B. AND CH.B. EXAMINATION. (Part 2.)

First Division.	*Second Division.*
*J. H. Barker, Owens College.	J. Brown, Owens College.
*R. J. M. Buchanan, Univ. Coll.	E. C. Lomas, Owens College.
A. E. Giles, Owens College.	
J. M. Johnson, Owens College.	

* Recommended for Distinction in Medicine.

SOCIETY OF APOTHECARIES OF LONDON.—The following having satisfied the Court of Examiners during the past month as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society:—

Sargent, William Gostwycke, London Hospital.
Webb, Helen, Royal Free Hospital.
Smith, John Arthur, Leeds.
Stovin, Cornelius Frederick, London Hospital.
Best, William Harris, London Hospital.
Midelton, William John, St. Bartholomew's Hospital.
Sheldon, Robert Garnett, Victoria University, Liverpool.
Stephenson, Owen Taunton, University College, Liverpool.
Hill, Robert, Middlesex Hospital.
Motte, William de la, London Hospital.
Whitaker, George Herbert, St. Bartholomew's Hospital.
Harris, Percival Seymour, Middlesex Hospital.
Sleeman, R. Reginald, Cambridge, and St. Mary's, London.
Hulbert, Henry Harper, Oxford, and St. Thomas's, London.

The following passed in Surgery:—

Lory, A. G. B., London Hospital.
Gilpin, R. H., Middlesex Hospital.
Mitchell, E. S., Queen's University, Kingston.
Bradley, G. M., Grant Medical College.
Burgess, J. G., Guy's Hospital.
Cornilliac, J., King's College.
Gunn, F. W., King's College.
Lange, A. P., King's College.
Wilson, A. R., Oxford University.

The following passed in Medicine:—

Holt, H. M., Leeds.

At the examination in Arts, of 217 present, 2 passed in the first class, 30 in the second class, and 148 passed in one or more subjects, but not in all.

The following gentlemen have been appointed Assistant Examiners to the Society by the General Medical Council, and conduct the examinations in Surgery and Anatomy:—*Andrew Clark, F.R.C.S., *W. Adams Frost, F.R.C.S., *W. Arbuthnot Lane, F.R.C.S., *G. H. Makins, F.R.C.S., and *W. J. Walsham, F.R.C.S. The following gentlemen have been appointed by the Society as Examiners for the ensuing year:—*Henry Bullock, F.R.C.S., H. Radcliffe Crocker, M.D., B.S. Lond., F.R.C.P., *William Duncan, M.D., M.R.C.P. Lond., *F. de Havilland Hall, M.D. Lond., F.R.C.P., *Robert James Lee, M.D. Cantab., F.R.C.P., *A. H. N. Lewers, M.D. Lond., M.R.C.P., William Robert Smith, M.D., D.Sc., F.R.S. Edin., *John Sherwood Stocker, M.D. Lond., M.R.C.P., Chairman of the Court of Examiners, *John Chas. Thorowgood, M.D. Lond., F.R.C.P., and Francis Warner, M.D. Lond., F.R.C.P. Dr. Klein, F.R.S., has been appointed the Society's Examiner in Physiology for the ensuing year. Dr. Chas A. Hebbert has been appointed Assistant Examiner by the Society for the ensuing year.

* Members of the Court of Examiners.

ARMY MEDICAL SCHOOL, NETLEY.—The following surgeons on probation in the Indian Medical Service were successful at both the London and Netley examinations. The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions are determined by the marks gained in London added to those gained at Netley, and the combined numbers are as follows:—

	Marks.		Marks.
*Marshall, D. G.	6302	Prasad, K.	5376
†Moir, D. M.	6093	O'Gorman, P. W.	5360
‡Whitchurch, H. F. ..	5852	Gray, W. H.	5347
Roberts, J. R.	5837	Mould, G. T.	5292
Hojel, J. G.	5516	Arnim, H. C. L.	5275
Gee, F. W.	5475	Thomson, G. S.	5252
Grant, A. E.	5397	Pereira, F. C.	5231

* Gained the Herbert Prize of £20, the Montefiore Medal and Prize of 20 guineas, with the Parkes Memorial and Bronze Medal.

† Gained the Martin Memorial Gold Medal and the Montefiore second Prize.

‡ Gained the prize in Pathology presented by Sir Joseph Fayrer, K.C.S.I.

UNIVERSITY OF GLASGOW.—The following degrees were conferred on July 26th, 1888:—

DOCTORS OF MEDICINE (M.D.).

1. *Commended for Theses.*

D. Finlay, M.B., C.M., Scotland. | W. Wallace, M.B., C.M., Scotland.
C. Macpherson, M.B., Scotland.

2. *Ordinary Degree.*

A. Speirs Alexander, M.B., C.M., Scotland.
Samuel P. Alexander, M.B., C.M., Scotland.
T. J. Grime, M.B., C.M., England.
Robert Horn, M.B., C.M., Scotland.
John Keay, M.B., C.M., Ireland.
J. Kennedy, M.B., C.M. Ireland.
J. K. Love, M.B., C.M., Scotland.
Henry Mason, M.B., C.M., England.
J. Maxwell, M.B., C.M., Scotland.
D. C. Muir, M.B., C.M., Scotland.

DOCTOR OF MEDICINE (M.D.) AND MASTER IN SURGERY (C.M.).

Old Regulations.

Donald Munro, Scotland.

BACHELORS OF MEDICINE AND MASTERS IN SURGERY (M.B. AND C.M.).

1. *High Commendation.*

*Landel Rose Oswald, Scotland. | John Freeland Fergus, M.A.

* Mr. Oswald gains the Brunton Memorial Prize of ten pounds, awarded to the most distinguished Medical Graduate of the year.

2. *Commendation.*

Hugh Highet, Scotland.
T. K. Monro, M.A., Scotland.
H. J. Younger, M.A., Scotland.
John M'Cubbin Johnston, M.A., Scotland.
Alex. Blair, Scotland.
James Stephenson, Scotland.
J. Paterson Gillespie, England.
William Muir, Scotland.
John Adams Scotland.
Hugh Jones, Wales.
John Smith, M.A., Scotland.
H. L. G. Leask, Scotland.
J. Aimer Thoms, Scotland.
R. Owen Willis, England.

3. *Ordinary Degree of M.B. and C.M.*

John Adam, Scotland.
James Aitken, Scotland.
W. Menzies Alexander, M.A., B.Sc. Scotland.
W. E. L. Allen, England.
Archibald Auld, Scotland.
William Auld, Scotland.
Robert Banks, Scotland.
G. A. Bannatyne, Scotland.
T. C. Barras, Scotland.
Matthew Beattie, Scotland.
Thomas Low Blackburn, Scotland.
Matthew Blair, Scotland.
Matthew H. Bland, England.
J. Finlay Boa, Scotland.
T. M. Bonar, Scotland.
J. Payton Boyd, Scotland.
M. Aloysius Boyle, Ireland.
R. C. Brodie, Scotland.
Alex. Buchanan, England.
R. M'Niel Buchanan, Scotland.
F. S. Campbell, Scotland.
John Charles, Scotland.
James Cook, Scotland.
Andrew Copland, West Indies.
H. Osborne Cohen, England.
H. R. V. Crossfield, England.
James Culross, M.A., Scotland.
W. J. Daly, Ireland.
Andrew Davidson, M.A., Scotland.
William Diamond, Scotland.
J. Donald, M.A., Scotland.
W. C. Downs, Scotland.
J. C. Duncanson, Scotland.
A. G. Faulds, Scotland.
D. Ferguson, M.A., Scotland.
Peter Ferguson, Scotland.
H. Findlay, Scotland.
C. J. Fyfe, Scotland.
E. H. Fyffe, Australia.
P. Gardiner, Scotland.
W. Gemmell, Scotland.
W. J. Giblin, England.
Hugh Girvan, Scotland.
A. Halliday, Scotland.
W. Cowan Hamilton, Scotland.
J. E. Hunter, Ireland.
T. B. Hutcheson, Scotland.
A. B. Kelly, B.Sc., Scotland.
H. Kirkland, Scotland.
E. Lang, Scotland.
J. Livingstone, Scotland.
W. Livingstone, Scotland.
J. Mathie, Scotland.
W. H. Murray, Scotland.
J. F. D. Macara, Scotland.
J. N. Macarthur, Scotland.
D. M'Callum, Scotland.
J. S. M'Conville, M.A., Scotland.
A. N. M'Gregor, Scotland.
J. M'Kendrick, Scotland.
K. C. Mackenzie, England.
R. D. Mackintosh, Scotland.
J. T. Maclachlan, Scotland.
J. MacPherson, Scotland.
C. R. Niven, Scotland.
F. L. Norris, Scotland.
T. L. Paterson, Demerara.
R. L. Pinkerton, M.A., Scotland.
W. Primrose, Scotland.
D. Ramsey, Russia.
W. Robb, Scotland.
C. E. Robertson, Scotland.
W. Roxburgh, Scotland.
J. Sandilands, M.A., Scotland.
W. P. Sandilands, Scotland.
A. Shanks, Scotland.
R. P. Shearer, Scotland.
H. R. Sloan, Scotland.
J. T. Smith, Scotland.
J. Somerville, Scotland.
J. A. Stewart, Scotland.
J. Strang, Scotland.
A. F. Walker, Scotland.
J. B. Wallace, Scotland.
J. P. Wilson, Scotland.
R. Wilson, Scotland.
A. S. Wotherspoon, Scotland.
J. Wright, Scotland.
J. Young, Scotland.

DRAINAGE OF GUILDFORD.—The Guildford Urban Sanitary Authority have agreed on the adoption of a main drainage for the town. The separate system is to be employed, and the sewage received into tanks and treated with chemicals.

ROYAL INFIRMARY AND LUNATIC ASYLUM, ABERDEEN.—At a meeting of the managers held last week, it was resolved to purchase the Mansion House, and 283 acres of the estate of Glack, near Inverurie, for £11,000, to form a branch as additional accommodation to the lunatic asylum, an addition the institution has long required.

THE KENDRAY FEVER HOSPITAL.—Mrs. Lambert, of London, who offered £4000 for the erection of the proposed hospital at Barnsley, finding the amount insufficient for the raising and furnishing of the building, has generously increased her donation to £6000, the sum required for the purpose. A site for the hospital has been selected.

COTTON DISTRICTS CONVALESCENT FUND.—The report of the Hospital and General Purposes Committee was laid before the governors of the Fund, at a meeting held at the Westminster Palace Hotel on the 27th ult. During the past quarter 590 patients had been sent to the respective convalescent hospitals, at a cost to the fund of £986 3*s*.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—The fifty-sixth report, presented to the governors at the annual meeting recently held, showed that the field of usefulness of the institution continued to increase. The expenditure had been somewhat less than the previous year—viz., £4857 6*s*. 11*d*., against £5048 10*s*. 7*d*. The receipts were fairly satisfactory, the subscriptions, donations, &c., being slightly increased. The legacies received during the year amounted to £1260 10*s*. 6*d*., and by this means the debt due to the treasurer of £920 17*s*. 10*d*. had been reduced to £111 0*s*. 8*d*., and the unliquidated ground rents mentioned in the last report had been discharged. An impetus had been given to the scheme for a new hospital by a donation of £500 for that purpose from Mrs. E. Bingham.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The following, having passed the necessary examinations in July, 1888, have received the certificate of the Association:—Edward Farr Armour, John Bruce, William Dobree Calvert, Henry Cecil Chapman, George P. Cope, Percy Charles Evans, Edwin Goodall, James H. W. Laing, R. R. Leepis, Henry John Macevoy, M. J. Nolan, Peter J. Rice, William A. Turner, Jane Elizabeth Waterston, and George Robert Wilson.

PROVINCIAL HOSPITAL SUNDAY COLLECTIONS.—The annual Hospital Sunday collection recently made at Marlborough, in aid of the funds of the Savernake Cottage Hospital, amounted to £7 5*s*. 9*d*. The Hospital Sunday collection at St. Albans realised £53 13*s*. 9*d*., which has been handed over to the treasurer of the St. Albans Hospital and Dispensary. The Sunday collections on behalf of the Wantage Cottage Hospital have amounted to £33 13*s*. 3*d*. The recent Sunday collection, organised by the St. Catherine's League of the Cross, in aid of the funds of the London Hospital, amounted to £14 18*s*. 3*d*.

THE OLDHAM INFIRMARY.—Mr. Charles E. Lees presided at the quarterly meeting of the Governors, held last week. The report read stated that since the sanitary alterations effected last year there had been an improved condition of health amongst the staff, and cases of preventable diseases among the patients were almost unknown. Especial interest was felt in the proceedings of the meeting, in consequence of the presentations to be made to officials who had been long and honourably connected with the infirmary—viz., to Mr. G. Wainwright, treasurer, a silver candelabra and candlesticks; to Dr. McGowan a handsome marble clock; and to Mr. George Lees, the former secretary, a gold watch.

HUDDERSFIELD INFIRMARY.—From the annual report submitted to the governors and subscribers by the Board of Management at the meeting held on the 27th ult., the institution appears to fully maintain its usefulness and efficiency. A noticeable feature of the report is the continued and increasing interest taken by the industrial classes in the infirmary. They contributed during the past year £943 4*s*. 7*d*., against £830 17*s*. 8*d*. the previous year, an addition of £112 6*s*. 11*d*. The contemplated enlargement of the institution the Board was brought before the meeting. A site has been secured, and the work will be commenced as soon as the amount required is provided. The estimated cost is at least £20,000, towards which £8000 has been given and promised.

INSANITARY CONDITION OF BILLINGSGATE.—It appears the defective sanitary arrangements of this ward have been a long-standing grievance with the ratepayers; and as some alarm has recently been produced in consequence of several cases of illness having occurred—alleged to be caused by the noxious exhalations from the sewers and the insanitary state of the ward,—a meeting of the ratepayers was hurriedly convened, by printed bills, on the 25th ult., which was held in the subscription rooms of the market. There was a large representation of the leading inhabitants, and the following resolutions were unanimously adopted:—(1) That the state of the sewers and the drains in Thames-street is dangerous to health; (2) that the inhabitants are suffering seriously, and are unable to remain in their shops, from the stench arising from the drains; (3) that nausea and sickness of a seriously distressing kind are the results felt by the inhabitants; and (4) that the inhabitants demand immediate attention to their complaint.

ASHBY-DE-LA-ZOUCHE BATHS.—The quiet little town of Ashby-de-la-Zouche was *en fête* on the 24th ult., the occasion being the reopening of the celebrated saline baths. Originally opened in 1822, the baths had gradually fallen into disuse from a variety of circumstances. Recently a company has been formed, and a large amount of public spirit infused into the undertaking, with the result that the buildings, baths, and grounds have been thoroughly repaired, and brought up to the fullest requirements of the present time. Lord Donington presided at a public luncheon, to which a number of medical men were invited. The buildings contain baths for six males and six females, with apparatus for needle, douche, ascending, and shower-baths; a large swimming-bath, 50 ft. by 25 ft.; steam heating appliances, and every facility for the convenience and comfort of visitors. The hotel has been arranged with a view to giving comfortable quarters, and a carefully regulated *cuisine*. The grounds are spacious, well laid out, and the surrounding country affords

typical examples of true English scenery within easy distance by pleasant drives. The local traditions have been recalled by the glowing pen of Sir Walter Scott, and the interest of historical associations will beguile those who can combine such investigations with the search for health. A recent analysis by Dr. Paul shows that the waters are rich in chloride of sodium, chlorides of calcium, magnesium, &c., being analogous to those of Pullna and Kreuznach.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The Secretary reports to the two Colleges that at the first part of the Examination for the Diploma in Public Health, held on June 4th and 6th by Dr. Stevenson and Dr. Corfield, ten candidates presented themselves, six of whom were reported by the examiners to have passed; and that at the second part of the examination, held by Dr. Ballard and Dr. Thorne Thorne on June 11th, 12th, and 13th, six candidates presented themselves, of whom four were found by the examiners to be qualified for the diploma. The following are the names of the four candidates who are therefore recommended by the examiners for the diploma—viz., Richard James Reece, L.R.C.P. Lond., M.R.C.S. Eng., St. Bartholomew's, 52, Tisbury-road, West Brighton; Adolphus J. Richardson, M.B. Cantab., M.R.C.P. Lond., M.R.C.S.E., Cambridge and London, 45, St. John's-terrace, Hove, Brighton; John Lloyd Roberts, M.B. & C.M. Edin., Edinburgh and Birmingham, Vale-street, Denbigh, North Wales; John Paul Roughton, M.R.C.S. Eng., St. Bartholomew's, Kettering, Northamptonshire.

METROPOLITAN PROVIDENT MEDICAL ASSOCIATION. The Council of the above Association held its quarterly meeting on Saturday at the office, 5, Lamb's Conduit-street, W.C. By the report of the executive committee, it appears that two new branches have recently been opened—viz., at Walworth and Tottenham. At the latter place considerable progress has been made, during the last two months, by the collection of weekly contributions; one satisfactory result of the experiment being that a poorer class of persons are thereby induced to join. An old-established provident dispensary in Westbourne-park has been handed over to the Association, to be conducted as one of its branches. Resolutions in favour of the abolition of the 1*s.* entrance fee, in the case of persons joining in health, and the plan of receiving, and if necessary collecting, weekly contributions were passed. It was also resolved to organise branches at the East-end, and at Kennington, before the close of the present year. There are now about 30,000 persons who are entitled, in return for weekly or monthly contributions, to medical treatment and medicine at the thirteen branches of the Association, and in case of serious illness at their own homes.

BEQUESTS AND DONATIONS TO HOSPITALS.—By his will, dated Aug. 20th, 1887, Isaac Harrinson, F.R.C.S. Eng., a well-known surgeon in Reading, bequeathed to the Corporation of the Sons of the Clergy £1000; the Society for the Propagation of the Gospel in Foreign Parts, £1000; Additional Curates Society, £1000; the Vicar and Churchwardens of the Parish of St. Mary, Reading, towards providing a stipend for the curates for the time being of the Church of St. Mary, Reading, £1000; the British Medical Benevolent Fund, £500; the Royal Berkshire Hospital, £500; the Reading Dispensary, £500; the Reading-green Girls' School, £500; the Reading Blue Coat School, £500; to his coachman, £500. Bequests are made to his cousins and to his deceased wife's nephews and nieces, and he devises his real estate and the residue of his personal estate, in equal shares, to Dr. James Dodd Swallow, 313, Clapham-road, London, and Miss Charlotte Elizabeth Greenhow Bardsey, Bath-road, Reading, whom he appoints executor and executrix of his will, and by whom the value of the personalty has been declared for probate at £43,700 6*s.* 1*d.*—Dame Laura Buchan, widow of the late Lieut.-General Sir John Buchan, K.C.B., late of Sussex-square, has bequeathed £1000 each to the Isle of Man General Hospital, the Middlesex Hospital, and the Hospital for Sick Children (Great Ormond-street), £500 each to the Hospital for Consumption and Diseases of the Chest (Brompton), and the National Hospital for Consumption and Diseases of the Chest (Ventnor). Mr. Denis Crofton, late of Mountjoy-square, Dublin, has left by his will £500 each to the Adelaide Hospital (Peter-street) and the Fever Hospital and House of Recovery (Cork-street, Dublin). The Corporation of London has given 100 guineas to the Royal Hospital for Children and Women, and 50 guineas to the Central London Ophthalmic Hospital.

MEDICAL NOTES IN PARLIAMENT.

Dr. MacCabe.

IN the House of Commons on the 26th ult., Mr. J. Stuart asked the Chief Secretary to the Lord Lieutenant of Ireland whether the Dr. MacCabe, at present attending the inquest at Mitchelstown, was the same who filled the office of Medical Commissioner of the Local Government Board; and if so, why was he sent to examine the political prisoners in Tullamore Gaol; whether he had had his attention directed to the recommendation of the Royal Commission on Prisons (Ireland), 1883-4, in which they advise an improved diet for prisoners, and state "it should always be borne in mind that the medical officer of a prison, when he sees fit, may alter or add to the diet of any prisoner whose health seems to require attention;" whether this recommendation was adopted; and whether a circular was issued by Dr. MacCabe, while a member of the Prisons Board, to the medical officers of Irish prisons, requesting them to report in favour of the old scale of diet, which the Royal Commission had unanimously condemned.—Mr. A. J. Balfour said that Dr. MacCabe now fills the office of Medical Commissioner of the Local Government Board. When he visited Tullamore, he was medical member of the Prison Board. The recommendation of the Royal Commission has been adopted. He need hardly add that no such circular as that alluded to was ever issued.

Dr. Barr.

In answer to Mr. Sexton, Mr. A. J. Balfour said that Dr. Barr is medical officer of Kirkdale Prison, Liverpool. He visited prisoners convicted under the Crimes Act in Tullamore last year by direction of the Government. He made a report upon the subject. As at present advised, he did not propose to lay these reports upon the table. Such a course would be contrary to universal practice, and might form a very undesirable precedent. He visited, in addition to Tullamore, Limerick, Clonmel, Cork, Wexford, and Londonderry prisons. By the order of the Government he recently visited Mr. John Dillon. He was not aware whether he refused his name. Mr. Dillon did decline to submit to examination.—Mr. M. Healy asked why the right hon. gentleman was unable to answer the question as to why Dr. Barr refused to give his name to Mr. Dillon.—Mr. A. J. Balfour said he had not the information. If the hon. member thought it important he would inquire.

Vaccination in Wales.

On the 27th ult., in answer to Mr. A. Williams, Mr. Ritchie stated that the hon. member was under a misapprehension in supposing that a certificate of proficiency in vaccination was required by the Local Government Board of every medical man before he could hold a Poor-law appointment. The certificate was required, not for a Poor-law appointment, but for the office of Public Vaccinator. It was the case that there is no public vaccination station in Wales at which this certificate can be obtained; but the Board are not aware that any serious inconvenience has been occasioned thereby. The College of Physicians, the College of Surgeons, and the Apothecaries' Society now require the certificate from every candidate for their diploma or licence, and hence most medical men now obtain these certificates before entering on practice. It is not usual to appoint examiners to grant these certificates in towns in which there is no school of medicine. But if a medical school should be established for Wales, he would be prepared to consider the question of appointing an examiner who would be authorised to give these certificates.

Coroners' Inquests

On the 30th ult., Sir A. Borthwick asked the Attorney-General whether Her Majesty's Government would be prepared, when the Coroners Bill came before the House, to insert a clause providing that inquests should be held in public, subject to the ordinary power exercised by the Judges of excluding the public and the Press when the evidence to be given was unfit for publication.—The Attorney-General said that he was afraid it was not possible to answer the question of the hon. baronet directly. The question whether any alteration should be made in the law relating to the admission of the public to coroners' courts was one which required to be considered together with other provisions relating to those courts, and he was not able to say more at present than that Her Majesty's Government would give most careful consideration to the question raised by the hon. baronet.

The Inquest on Mr. Mandeville.

Mr. Anderson asked the Chief Secretary for Ireland whether, after the verdict of the jury on the late Mr. Mandeville, that his death was brought about by brutal and unjustifiable treatment, the Government intended to suspend the official or officials responsible for that treatment; whether, after the protest of the jury against treating political prisoners as common criminals, the Government would discontinue that practice; and whether, after the condemnation by the jury of the aspersions sought to be cast upon the medical witnesses by Dr. Barr, the Government would suspend him from his duties as Prisons Inspector.—Mr. A. J. Balfour said that in his opinion the verdict of the jury was entirely unwarranted by the facts of the case, and he did not intend to take any action founded upon it.—Mr. Chance asked whether the Government intended to set aside the verdict which the right hon. gentleman considered to be entirely unwarranted.—Mr. A. J. Balfour asked for notice of the question.—Mr. Clancy asked whether Dr. Barr was the Irishman of that name who was a prominent Tory partisan in Liverpool.—Mr. A. J. Balfour said he had no knowledge of Dr. Barr except in his public capacity.

Royal Marine Medical Officers.

In reply to Mr. Fraser-Mackintosh, Lord G. Hamilton stated that there were full instructions for the guidance of the medical officers of the Royal Marine Light Infantry. The medical officers would certainly not wait to be consulted if they had any reason to believe that any officer or man under their care was suffering from disease.

Anthrax.

In reply to Mr. W. M'Arthur, Viscount Lewisham stated that no special inquiries have recently been made into the nature of the disease. The anthrax order does not provide for compensation. He informed Mr. Tapling on July 6th that "compensation was only provided when compulsory slaughter was required to prevent the spreading of disease." But in anthrax animals die so soon after being attacked that slaughter could very rarely be enforced, and further, it is very desirable to avoid effusion of blood, which is highly infective to other animals.

Contagious Diseases in India.

Sir J. Gorst informed Mr. J. Stuart that it was too early to expect a reply from India as to the resolution of the House of Commons condemnatory of the Contagious Diseases Act in that country.

Milk from Tuberculous Cows.

The following notice appears in the name of Dr. Farquharson in the Parliamentary papers: To ask the noble lord the member for Lewisham whether his attention has been called to the following extract from a lecture delivered at the University of London by Dr. Sims Woodhead, Sanitary Research Scholar of the Grocers' Company, and reported in THE LANCET of July 14th: "It is of course impossible to bring direct experimental proof to bear on the case of the human subject, but the indirect evidence recently adduced by various continental observers, and the examination of series of cases, should be very strong evidence indeed that in children, especially those who are subject to the wretched hygienic treatment and bad feeding to which, unfortunately, so many of our poorer class children are exposed, tuberculosis may be contracted as the result of the ingestion of milk from tuberculous udders." And, whether, in consideration of such an alarming opinion from a high scientific authority, he will consider the possibility of establishing some such systematic inspection of dairies as is now carried out in Copenhagen.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BALBIRNIE, J. P., L.R.C.P., L.R.C.S.Edin., has been appointed Medical Officer for the Stavely District of the Kendal Union.

BRODRICK, H. EDWARD, M.B., B.S.Durh., M.R.C.S., L.S.A., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, Fulham-road, S.W.

BULL, WILLIAM C., M.A., M.B.Cantab., F.R.C.S., Surgical Registrar to St. George's Hospital, has been appointed Surgeon to Out-patients at the Belgrave Hospital for Children, vice R. Marjerison, F.R.C.S., resigned.

CLEGG, R., L.R.C.P. and L.M., L.R.C.S.Edin., has been appointed Medical Officer for the Bowness District, Kendal Union.

DAVEY, R. S., M.D.St. And., M.R.C.S., L.M. and L.S.A., has been reappointed Medical Officer of Health, Walmer.

DIXON, W., M.B. and C.M.Edin., has been reappointed Medical Officer, Eythorne District, Eastry Union, Kent.

DODD, T. A., L.R.C.P., L.M.Edin., M.R.C.S., has been appointed Medical Officer of the Workhouse, Newcastle-upon-Tyne Union.

EZARD, E. H., M.B. and C.M.Edin., B.Sc., late Demonstrator of Physiology, Edinburgh University, has been appointed Junior Assistant Physician to the Royal Edinburgh Asylum.

GRIFFIN, INNES, M.R.C.S., L.S.A., has been appointed Medical Officer to the Banbury District, Banbury Union.

LONG, EDWARD, M.R.C.S., M. and L.S.A., has been reappointed Medical Officer for the 5th District, Bridge Union, and 2nd Hougham Division, Dover Union.

MATURIN, H., L.R.C.P. and L.M.Edin., M.R.C.S., L.S.A., has been appointed Medical Officer for the Seventh District of the Basingstoke Union.

MURDOCH, A., M.B. and C.M.Glasg., has been reappointed Medical Officer and Public Vaccinator for the Rainsford District of the Prescot Union.

PAINE, G. R. R., M.R.C.S., L.S.A., has been appointed Medical Officer for the First District and the Workhouse, Fordingbridge Union.

RUGG, G. L., L.R.C.P.Lond., M.R.C.S., L.S.A., has been appointed Medical Officer of the Norwood Schools, and the Norwood District.

SANDERS, J. W. M.D.Brux., F.R.C.S., M. and L.R.C.P.Lond., has been appointed Senior Medical Superintendent of St. George's-in-the-East Workhouse and Infirmary, Old Gravel-lane.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRISTOL GENERAL HOSPITAL.—Physician's Assistant. Board, lodging, and washing in the house. Salary £50 per annum.

GENERAL HOSPITAL, Nottingham.—Senior Resident Medical Officer. Salary £120 for the first year, with an addition of £10 a year up to £150, with board, residence, and washing.

ITALIAN HOSPITAL, Queen-square, Bloomsbury.—Assistant Medical Officer.

PARISH OF ST. MATTHEW, Bethnal-green.—Assistant Medical Officer. Salary £100 per annum, rising £25 annually to a maximum of £150, with board and residence.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

UNIVERSITY COLLEGE, Bristol.—Medical Tutor. Stipend £125 per annum.

Births, Marriages, and Deaths.

BIRTHS.

THANE.—On the 17th June, at Atherfield, Yass, N.S.W., the wife of P. T. Thane, L.R.C.P.Lond., M.R.C.S., of a son.

THOMAS.—On the 29th ult., at St. Peter's-street, Winchester, the wife of Surgeon G. Harley Thomas, Army Medical Staff, of a daughter.

THURSTAN.—On the 29th ult., at Southborough, Tunbridge Wells, the wife of E. Paget Thurstan, M.D.Cantab., of a son.

VENN.—On the 29th ult., the wife of Albert J. Venn, M.D., M.R.C.P., of a son.

VOS.—On the 24th ult., at Bruce Grove House, Tottenham, N., the wife of G. Herklots Vos, M.B.Cantab., M.R.C.S.Lond., of a daughter.

MARRIAGES.

BARKER—MASON.—On the 25th ult., at St. Cuthbert's, Bedford, Fredk. Rowland Barker, M.B.Lond., Medical Staff, only son of Dr. E. J. Barker, The Mount, Aldershot, and Anne Isabella (Ella), only child of the late C. F. Mason, of Stone, Staffordshire.

HUSBANDS—WHITEHURST.—On the 2nd inst., at All Saints, Finchley-road, N.W., by the Rev. F. W. Smailes, Harold Wessen Husbands, M.R.C.S. Eng., L.R.C.P.Lond., of Harrold, Beds, younger son of T. W. Husbands, R.N., Clifton, Bristol, to Anne Maria (Marie), elder daughter of the late John Whitehurst, of Coton Grove, Salop.

MILLER—STUTTAFORD.—On the 24th ult., at the Parish Church, Walmer, F. R. Miller, L.R.C.P., M.R.C.S., L.S.A., to Effie, daughter of S. Stuttaford.

TUNNICLIFFE—CHARLTON.—On the 25th ult., at All Saints' Church, Speke, by the Vicar, the Rev. F. B. Watkins, M.A., Edwin T. M. Tunnicliffe, M.R.C.S., of Whetstone, London, N., second son of the late F. W. Tunnicliffe, of Blana, Eccleshall, Staffordshire, to Lizzie, eldest daughter of the late William Charlton, of Speke.

DEATHS.

BARKER.—On the 27th ult., at The Mount, Aldershot, Edmund John Barker, M.D., M.R.C.S., L.S.A., aged 70.

BROWNE.—On the 26th ult., at Burnt Ash, Lee, Henry Browne, M.R.C.S., of the South-Eastern Railway Company, aged 64.

LOUTTIT.—On the 27th ult., at Vanbrugh-park, Blackheath, London, James Louttit, M.D., M.R.C.S.E.

JOY.—On the 6th ult., at his residence, 1, Bower Terrace, Maidstone, after many years of suffering most patiently borne, Henry Winkles Joy, F.R.C.S.Eng., J.P., aged 83.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BALDWIN & CO., Georgetown, Demerara.
The Georgetown Hospital Reports for 1887. Edited by E. D. Rowland, M.B.Edin. 1888. pp. 125.

BERTHIER, B., Paris.
La Santé par le Tricycle. Par le Dr. Oscar Jennings. 1888. pp. 173.

BLACKIE & SON, Old Bailey, London.
The Movements of Respiration, and their Innervation in the Rabbit. By Max-Marckwald, M.D. With an Introductory Note by J. G. M'Kendrick, M.D., LL.D., F.R.S. 1888. pp. 177.

BURLEIGH & FLINT, Augusta, Maine.
Third Annual Report of the State Board of Health, of the State of Maine, for the year 1887. 1888. pp. 324.

CHAPMAN & HALL, Limited, London.
Austrian Health Resorts and the Bitter Waters of Hungary. By W. F. Rae. 1888. pp. 292.

CHURCHILL, J. & A., New Burlington-street, London.
A Treatise on Dislocations. By L. A. Stimson, B.A., M.D. With 163 Illustrations. 1888. pp. 539.
The Natural History and Epidemiology of Cholera. By Sir J. Fayrer, K.C.S.I., LL.D., M.D., F.R.S. 1888. pp. 71.

DAVIS, G. S., Detroit, Mich.
The Intestinal Diseases of Infancy and Childhood. By A. Jacobi, M.D. 1887. pp. 301.

DOIN, OCTAVE, Paris.
Formulaire Pratique de Thérapeutique et de Pharmacologie. Par Dujardin-Beaumetz et P. Yvon. Troisième tirage de 1887. 1888. pp. 610.

FANNIN & CO., Grafton-street, Dublin.
The Medical Profession of the United Kingdom, being the Essay to which was awarded the First Carmichael Prize of £200, 1887. By Walter Rivington, B.A., M.B., and M.S. Univ. Lond. 1888. pp. 1200.
The Medical Profession in the Three Kingdoms in 1887. The Carmichael Prize Essay, 1887. By T. Laffan, M.C.P.I. 1888. pp. 385.

FISCHER, GUSTAV, Jena.
Die Entwicklung der Bakterienfarbung: Eine Historisch-kritische Uebersicht. Von P. G. Unna. 1888. pp. 80.
Beiträge zur Pathologischen Anatomie und zur Allgemeinen Pathologie. Von Dr. E. Ziegler und Dr. C. Nauwerck. Dritter Band. Erstes Heft. Mit 11 lithographischen Tafeln und 5 Abbildungen im Text. 1888. pp. 187.
Anatomische, Physiologische, und Physikalische Daten und Tabellen zum gebrauche für Mediciner. Von Dr. Hermann Vierordt. 1888. pp. 303.

HAMILTON, ADAMS, & CO., Paternoster-row, London.

The Thermal Baths of Bath, with the Aix Massage and Natural Vapour Treatment. By H. W. Freeman, F.R.C.S. Irel., M.R.C.S., L.R.C.P.Lond. With 14 Illustrations, Plans, &c. 1888. pp. 379.

HARRISON & SONS, St. Martin's-lane, London.

A Descriptive Catalogue of the Pathological Museum of Charing-cross Hospital. By J. H. Morgan, M.A.Oxon., F.R.C.S. 1888. pp. 131.

KEGAN PAUL, TRENCH, & CO., Paternoster-square, London.

Ireland: its Health Resorts and Watering-places. By Dr. E. Flinn, F.R.C.S. With maps showing the distribution of temperature and rainfall throughout Ireland. 1888. pp. 175.

KNIGHT & CO., Fleet-street, London.

Synoptical Index of the Regulations for Registration of Births, Deaths, and Marriages, in England and Wales. By James Lewis, Inspector of Registration. 1888. pp. 169.

LEWIS, H. K., Gower-street, London.

Diseases of the Skin, their Description, Pathology, Diagnosis, and Treatment. By H. R. Crocker, M.D. With 76 Illustrations. 1888. pp. 746.

Nerve Prostration and other Functional Disorders of Daily Life. By Robson Roose, M.D., F.R.C.S. 1888. pp. 068.

The Abortive Treatment of Specific Disorders by the Biniodide of Mercury. By C. R. Illingworth, M.D.Edin., M.R.C.S. 1888. pp. 24.

A Handbook of the Theory and Practice of Medicine. By F. T. Roberts, M.D., B.Sc., F.R.C.P. Seventh Edition. 1888. pp. 1044.

On the Treatment of Rupture of the Female Perineum, immediate and remote. By G. G. Bantock, M.D., F.R.C.S.Edin. Second Edition. With 12 Illustrations. 1888. pp. 92.

The Applied Anatomy of the Nervous System. By A. L. Ranney, A.M., M.D. Second Edition. Rewritten, Enlarged, and Illustrated. 1888. pp. 791.

Catalogue of Lewis's Medical and Scientific Library. New Edition. Revised to Midsummer, 1887. pp. 267.

SAMPSON LOW & CO., Fetter-lane, Fleet-street, London.

Incwadi Yami, or Twenty Years' Personal Experience in South Africa. By J. W. Matthews, M.D. 1887. pp. 542.

YOUNG, J. PENTLAND, Edinburgh.

A System of Obstetrics by American Authors. Edited by B. C. Hirst, M.D. Vol. I. Illustrated with Coloured Plate and 309 Engravings. 1888. pp. 808.

The Construction and Management of School Infirmaries and Sanatoria; prepared by the Council of the Medical Officers of Schools Association (Churchill, New Burlington-street, London, 1888), price 1s.—Francesca and other Poems; by W. J. Notley, M.D. (Digby and Long, Bouverie-street, Fleet-street, London, 1887).—Pallas's Sand Grouse, its Natural History, with a Plea for its Preservation; by W. B. Tegetmeier, F.Z.S. (Horace Cox, 346, Strand, London, 1888), price 1s.—The History and Circumstances of a Peculiar Outbreak of Febrile Disease; by J. B. Russell, M.D., LL.D., with note by S. Gemmell, M.D. (R. Anderson, Ann-street, Glasgow, 1888).—Ragatz-Pfäfers: The Curative Properties of the Baths; by A. Schaedler, M.D., with maps and views (Scheitlin and Zollikofer, St. Gall, 1886).—Keely's Secrets: Part I. Etheric Force identified as Dynaspheric Force. Part II. One Phase of Keely's Discovery in its relation to the Cure of Disease; by Mrs. Bloomfield Moore, July, 1888).—Die Grundlinien der heutigen Syphilistherapie; von Dr. Ernst Schwimmer (Leopold Voss, Hamburg und Leipzig 1888).—An Experimental Contribution to Intestinal Surgery, with special reference to the Treatment of Intestinal Obstruction; by N. Senn, M.D., Ph.D. (J. H. Chambers and Co., Locust-street, St. Louis, 1888).—Fracture of the Spine: its immediate Treatment by Rectification of the Deformity, and Fixation by Plaster-of-paris Jacket; by H L. Burrell, M.D. 1887.—Das Carcinom; von Dr. C. Fortes. Juni, 1888. (H. Kutzner, München).—The Altered Relations of Surgery to Medicine (Cavendish Lecture), delivered at the West London Hospital by Sir William Stokes, M.D., Ch.M. Univ. Dub., F.R.C.S.I. (J. and A. Churchill, New Burlington-street, London), 1888, price 1s.—The Physical Culture of Women; by Miss Chreiman, 1888, price 1s.—Sketches of Hospital Life, by Honnor Morten (Sampson Low and Co., Fetter-lane, Fleet-street, London, 1888), price 1s.—Index Medicus: Authors and Subjects, vol. x., No. 6, June, 1888 (Trübner and Co., and Lewis).—The Extra Pharmacopœia, with the Additions introduced into the British Pharmacopœia, 1885; by W. Martindale, F.C.S., and W. W. Westcott, M.B.Lond. Fifth edition. (Lewis, Gower-street, London, 1888).—Pierce Gambit, Chess Papers and Problems; by J. Pierce, M.A., and W. Timbrell Pierce (Trübner and Co., Ludgate-hill, London, E.C., 1888).—The Annual Report of the Department for the Insane of the Pennsylvania Hospital for the year ending 21st April, 1888 (Press of Friends' Printing-house, Sixth and Arch-streets, Philadelphia, 1888).—Electric Lighting: its Present Position and Future Prospects, with illustrations; by Hammond and Co., London (Whitehead, Norris, and Lowe, Fenchurch-street, London, 1888), price 6d.—Sull' Uso Terapeutico della Creolina; pel V. Martini (Enrico Torrini, Siena, 1888).—Surgery of the Abdomen; by E. Mears, M.D. (The Medical Bulletin Printing-house, Filbert-street, Philadelphia, 1888).—Inhabited House Duty, how and when to Appeal; by Alfred Chapman (Effingham Wilson).—Magazines for August: Good Words, Sunday Magazine (Isbister); Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper (Religious Tract Society); Scribner's Magazine.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, August 2nd, 1888.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 27	29·88	S.W.	60	56	109	69	53	·13	Cloudy
,, 28	29·45	W.	64	61	108	67	59	·33	Cloudy
,, 29	29·85	S.W.	58	56	110	69	55	·03	Cloudy
,, 30	29·50	S.W.	60	57	114	71	56	·10	Overcast
,, 31	29·81	N.E.	55	52	93	60	52	·41	Overcast
Aug. 1	29·96	N.E.	55	51	80	59	51	·30	Overcast
,, 2	30·09	N.E.	56	54	92	62	52	1·34	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

QUACKERY *versus* REGULAR PRACTICE.

AN instructive story, illustrating the preference of the public (at least in France) for quackery over science, is just now going the round of the French medical press. A provincial magistrate having received numerous complaints that a certain Monsieur L—— was practising medicine illegally, sent for him and interrogated him as to the truth of the reports. To his surprise, the quack fully admitted the fact that he practised, but declared that he was only acting within his rights, being a Doctor of Medicine of the Faculty of Paris, and produced from his pocket his diploma, which was perfectly regular. On being asked why he had concealed the fact of his being properly qualified and posed as a quack, he explained that he had done well as a student, and that having attracted the notice of some of the professors, he was encouraged to set up in practice in Paris. Although a few patients came, he was unable to pay his way, having expended all he had saved in the fees necessary for his diploma, &c. He left Paris in despair, and went on board a cod-fishing boat. In this way he earned a few hundred francs and returned to France, determined to give up medicine and to follow business for a livelihood. He found, however, from time to time opportunities of attending patients, but did not tell them he was a doctor. His fame spread, and he had been making a good income for the last ten years, during which time he had saved and invested about 10,000 francs. He was so convinced of the superiority of the position of a quack over that of a medical man, that he begged the magistrate to keep his secret; for he was positive that if it leaked out that he was a qualified man he would lose all his practice.

H. S. R.—We have no large experience of the value of the drug for the purpose mentioned. But, speaking generally, we may say that we distrust the alleged virtues of "sleep-producers," and more than doubt the ultimate and permanent benefit said sometimes to be derived from their use.

Christchurch.—1. We cannot trace the announcement.—2. There is no evidence, so far as we are aware, that the one kind of down is better than the other.

WILSON FOX MEMORIAL.

To the Editors of THE LANCET.

SIRS,—Kindly allow us to acknowledge the following subscriptions, received since the publication of the last list:—Miss Isabel Goldsmid, £21; Miss Emma Goldsmid, £10 10*s.*; Dr. H. C. Wilkinson (Sydney), £3 3*s.*

We are, Sirs, yours faithfully,

W. R. GOWERS,
THOMAS BARLOW, } Hon. Secs.

July, 1888.

THE CHAIR OF SURGERY IN THE OWENS COLLEGE.

WE have received a rather lengthy communication from the hon. secretaries of the Students' Committee, stating that "it has been considered that it would be unfair to the Manchester candidates for the Chair of Surgery in the Owens College that the editorial statement in a recent number of THE LANCET, which implied a *relative* unfitness of these gentlemen for the post should remain unchallenged." The statement referred to was as follows:—"One thing, however, is certain—that on the ground of eminent fitness for the post of Professor of Surgery in the Owens College no possible objection can be raised to the selection which has been made." We submit that these words do not fairly bear the interpretation which has been put upon them in the extract from the letter which we have given, and that no "relative," or indeed any, unfitness on the part of either of the Manchester candidates for the post could be justly regarded as implied in our editorial remarks.

Perplexed.—Careful cleansing of the part with the application of astringent lotions is the most likely way to cure the patient. Failing this, it would be best to perform circumcision.

PRIMARY SYPHILIS OF THE TONGUE.

To the Editors of THE LANCET.

SIRS,—The following account of a common disease in a rare situation may prove of interest.

E. O——, a sailor aged forty-five, consulted me on March 4th for a sore on the tongue. On examination, a hard, indurated mass about the size of a filbert nut was felt in the middle third of the organ on the left side. It was ulcerated on the surface and sides, and the palate and gums were covered with mucous patches. The cervical submaxillary and inguinal glands were enlarged, and on the following day a copious papular rash appeared, extending from the scalp to below the knees.

The initial lesion of syphilis on the tongue is, I think, rather a rare occurrence, especially so far back as this. The man strongly resented the idea of having contracted it from his fellow-sailors, nor, as far as I could ascertain, were there any others on board suffering from primary or secondary syphilis. He admitted connexion in the ordinary way on Dec. 8th, 1887, two days before leaving London, and first noticed the sore three days after arriving at Calcutta—on Feb. 7th, 1888—and had never been on shore after leaving home. If he contracted it on Dec. 8th this would give a very long incubation period of sixty-one days, so I am still inclined to think he was infected through using a common pipe or in some similar manner from someone else on board.

I may say that all the symptoms are improving under the usual mercurial treatment.

I am, Sirs, yours faithfully,

Hong Kong, March 13th, 1888. J. BELL.

THE MANX CLIMATE.

C. M. P.—From recent investigations—notably those of Mr. A. W. Moore, embodied in a paper read before the Scottish Meteorological Society—it appears that the temperature of the Isle of Man is more equable than that of the surrounding coasts, higher in autumn and winter, similar in spring, and lower in summer. There is little frost or snow, but raw, damp weather is not uncommon. Winds are the same in frequency and strength as on the mainland, though on the island they are more felt owing to its greater exposure. Rainfall is more abundant and frequent than on the neighbouring coasts, though much less than in the mountainous districts above those coasts. Its humidity is rather in excess, while on the whole the Manx climate is equable and sunny, and, although moist, invigorating. Its rainfall, at no time too great, varies considerably in the several districts of the island, and the winds, in spite of its exposed position, are generally mild and damp.

MEDICAL ETIQUETTE.

Subscriber does not give us quite sufficient reasons for his objections to meeting Dr. T——. The friends had a right to take Dr. T——'s opinion if they wished it, but our correspondent should have been informed.

Mr. Frank Lane.—We regret we cannot aid our correspondent in the matter, as the report of the case on which our comments were based has been mislaid.

Dr. Macaw (Belfast) will find a notice of the meeting in the letter of our Belfast correspondent published last week.

THE PHYLLOXERA IN SWITZERLAND.

THE report of the Federal Government with regard to the progress of the phylloxera in Switzerland is by no means encouraging, as it states that in the course of last year 609 vines were attacked in the canton of Neuchatel, 111 in that of Geneva, 49 in that of Zurich, and 12 in that of Vaud. The method of treatment most generally adopted is the use of sulphate of carbon, and up to the present time the proposal to introduce American vines into Switzerland has not met with much favour, though it has been found very efficacious in France.

Mr Rundle would do well to apply to the Curator of the College of Surgeons.

THE RUSSIAN CAVALRY ACADEMY.

THE medical report of the Nicolai Cavalry Academy, where young officers are trained for the Russian cavalry service, has recently been published for the year 1887. During the year the average number of cadets was about 200; 180 cadets were admitted into hospital on 392 different occasions. The mean percentage in hospital from January to July was 0·49, and from September to December, 0·44. The most common causes of admission were gastric and intestinal catarrh, 111 cases; headache is given as the cause in 24 cases; urethritis in 19. Not a single case of syphilis or soft chancre is mentioned. A somewhat interesting case of concussion of the brain occurring in the riding school is reported. The cadet was unconscious for twenty-six hours, with spontaneous evacuation of urine and fæces. During this time he kept talking German—a language he had not been in the habit of speaking since he was eleven years old. As soon as consciousness returned, he spoke Russian as usual. The report concludes with some calculations showing the average cost of medicines and surgical appliances for each cadet. Dr. Grimm, the medical officer in charge, did his best to economise the expense of dressings by having most of them prepared under his own supervision by attendants, the result being that the dressings per cadet on the strength cost about 3*s.* 7*d.* during the year. As to medicine, 3663 prescriptions were written, the cost of each being under 2½*d.* Of course, in addition to the cadets, there were a number of attendants and their families treated. The statistics relating to these patients are carefully separated from those relating to the cadets.

A. R.—Cheese as an aliment is apt to be greatly vitiated by adulteration, and ought therefore to be used with caution. Recent revelations have shown many of the Italian cheeses to contain much deleterious admixture. On the other hand, the Canadian cheese, according to the chief analyst of the Dominion, is "perfectly pure and free from adulteration."

"ARRESTED DEVELOPMENT OF THE ABDOMINAL WALLS."

To the Editors of THE LANCET.

SIRS,—In your issue of July 21st last I read an interesting clinical note by Dr. Buchanan concerning the above affection. On July 22nd I myself delivered a woman of a female child, of which the anterior abdominal wall was deficient, and presented at the umbilicus a large tumour about the size of a man's fist, which was resonant on percussion. The skin of the abdominal wall only extended to the margin of the tumour, which was covered by a thin bluish, translucent membrane. This membrane I took to be the expanded tissues of the cord. The cord itself was inserted into the most anterior part of the tumour. The child was premature (about eight months), and I may add that it is still living, and seems to be doing well. The cord has not yet separated.

I am, Sirs, yours faithfully,

Manchester, July 27th, 1888. E. VIPONT BROWN, M.R.C.S., L.S.A.

SUICIDES IN FRANCE.

STATISTICS recently published show that the total number of suicides in France for the past twelve months is 7372. Of these, one-fifth were in and around Paris. Poverty appears to have caused only 483 suicides throughout France, and this number includes a morbid fear of impending misery without actual privation. To mental aberration 1975 cases were traced, and 1228 to physical suffering. Among the moral causes domestic trouble comes first, and alcoholism next. Disappointed love and jealousy caused respectively 200 and 27 cases, and dislike of military service 25. The suicidal month of the year is July, and it is noteworthy that since the establishment of the *fête* on the 14th suicides have increased.

Dr. H. McDermott.—Spiegelberg's Geburtshülfe; Charpentier, Traite Pratique des Accouchements; Tarnier and Budin; Lusk's Midwifery.

PETRIFACTION OF THE CARUNCULA LACRYMALIS.

DR. DOLSHENKOFF mentions in a Russian ophthalmic journal a case of petrifaction of the caruncula lacrymalis with hypertrophy. The tumour measured 11 millim. by 9 millim., and was covered by conjunctiva. When this was removed, a prismatic structure was seen.

C. F.—1. Any registered person is eligible for examination.—2. At least as good as any other.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Isambard Owen, London; Sir J. C. Browne, London; Dr. Suckling, Birmingham; Dr. Gowers, London; Dr. W. Carter, Liverpool; Mr. Rendle, London; Dr. Chepmell, London; Mr. Marshall, Hastings; Dr. Bamber; Dr. Yellowlees, Glasgow; Dr. Peregrini, London; Messrs. Carr and Co., Carlisle; Dr. Thompson, Launceston, Tasmania; Messrs. Wood and Co., New York; Mr. Perceval, Waratah, Tasmania; Dr. Vander Veer, Albany, N.Y.; Dr. Galton, Norwood; Mr. Ketleum, Waltham

Cross; Mr. Ryan, London; Mr. J. B. Bailey, London; Dr. Norman Kerr, London; Mr. Foulerton, Chatham; Mr. Folks, London; Dr. Sims Woodhead, Edinburgh; Mr. W. A. S. Hewins, Oxford; Mr. Vincent Jackson, Wolverhampton; Dr. H. R. Jones, Llanwddyn; Dr. More Madden, Dublin; Mr. Percival; Mr. J. Brown, Belfast; Dr. Beresford Ryley, London; Mr. J. Taylor; Mr. J. E. Ady, London; Dr. Alexander Duke, Dublin; Dr. J. W. White, Philadelphia; Dr. J. M. MacCormac, Belfast; Mr. J. J. Weaver, Southport; Dr. W. J. Wilson, Victoria; Dr. McDermott, Belfast; Mr. J. B. Bailey, London; Mr. C. Jackson, London; Mr. A. N. Brown, Manchester; Dr. W. Stephenson, Aberdeen; Dr. E. S. d'Odiardi, London; Dr. Mumby, Portsmouth; Mr. N. Mayne, Longford; Mr. T. B. Campbell, London; Mr. Rundle, Southsea; Mr. W. Carnie, Aberdeen; Dr. Finlayson, Glasgow; Dr. Shuttleworth, Lancaster; Mr. J. H. Wright, Halifax; Dr. Brodrick, London; Dr. H. Blanc, Cannes; Mr. Hyde, Buxton; Mr. Beckton, London; Mr. E. A. Piggott, Risbridge; Dr. E. C. Perry, London; Mr. A. T. Hawkins, London; Dr. Erzard, Edinburgh; Mr. C. Hancock, London; Mr. W. Sell, London; Mr. Plummer, Beyreuth; Dr. Skerritt, Bristol; D. M Cambridge; Messrs. Hogg and Sons, London; Mr. Townsend, Exeter; Quæro; Perplexed; C. F.; Christchurch; X. Y. Z., London; F. H., Salop; Hon. Secretaries, Students' Committee; S. E., London; The Infirmary, Staffs; G., London.

LETTERS, *each with enclosure*, are also acknowledged from—Prof. Tait, Birmingham; Mr. Maythorne, Biggleswade; Messrs. Oliver and Boyd, Edinburgh; Mr. Woodcock, Bradford; Messrs. Barton and Co., Congleton; Mr. Flint, London; Dr. Paul, Camberwell; Mr. Van Praagh, London; Mr. Godfrey, Northampton; Messrs. Ross and Co., Belfast; Mr. Swan, Yorks; Mr. Berthier, Paris; Messrs. Hill and Co., London; Mr. Virgo, Oxford; Messrs. Rowntree; Messrs. Bell and Bradfute, Edinburgh; Mr. Tunmer, Harrogate; Messrs. Condy and Mitchell, London; Mr. Gibbon, Carmarthen; Messrs. Beaman and Street, Ashton; Mr. Hay, Hull; Mr. Pope, Hereford; Messrs. Hooper and Co., London; Mr. Campbell, London; Messrs. Schweitzer and Co., London; Mr. Gillanders, Fortrose; Messrs. Brown, Gould, and Co., London; Mr. Budin, London; Dr. Brooks, Salop; Messrs. Isaacs and Co., London; Mr. Ticehurst, Hants; Mrs. Cocking, Plymouth; Dr. Hemming, Hants; Mr. Hutchinson, London; Dr. Allwright, London; Mr. Tinker, Staffs; Mr. Smyth, London; Mr. Heywood, Manchester; Mr. Hordley, Staffs; Mr. Herbert, Herts; Mr. Popham, Dulwich; Mr. Needham, Gloucester; Mr. Hogg, London; Mr. Collins, Harrogate; Mr. Elliott, Carlisle; Mr. Baker, London; Dr. Elliott, Andover; Mr. Soper, Dartmouth; Mr. Brand, Cornwall; Mr. Vernon, London; Mr. Parkes, Bristol; Dr. Waters, Liverpool; Mr. Donaldson, Edinburgh; Mr. Street, Lancs; Dr. Morley, Barton-on-Humber; Forceps, Leeds; Staffs. General Infirmary; Beta, Welshpool; Lady Principal, London; S. G., London; Valetudo, London; Hamilton Association, London; R., London; Booz, Leicester; Jarvis-Conklin Co., London; Dorset, London; C. D., Leeds; Maltine Manufacturing Co., London; Sigma, London; Delta, London; A. B., London; Lady Superintendent, Chichester; A. K. B. M., London; Dorset County Asylum; Medicus, Norwood; M., London; Geddes Manufacturing Co., London; Principal, Beccles; B. W., Aberdeen; Medicus, Liverpool; J. K. M., London; C. Y. R., Hasleden; Medicus, Birkenhead; A. B., London; Medicus, Walthamstow; C. Y. L., London; H. B. N., London; Stethoscope, London; M.D., Devon; G. H., Yorks; G. T., Yorks; Medicus, Brighton; S. N., London; H., London.

People's Journal (Fife), Dewsbury Reporter, Liverpool Mercury, Surrey Advertiser, Reading Mercury, Windsor and Eton Express, Hertfordshire Mercury, Jarrow Express, Midland Weekly Herald, Manchester Evening Mail, Dunfermline Saturday Press, Herald and Weekly Free Press, The Christian World, The Dawn, the Vegetarian, &c., have been received.

Medical Diary for the ensuing Week.

Monday, August 6.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, August 7.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

Wednesday, August 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M. Saturday, same hour.

Thursday, August 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, August 10.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 11.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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